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USNS BARTLETT CRUISE

TO THE GREENLAND SEA IN SEPTEMBER 1989

DATA REPORT

Robert H. Bourke, Robert F. Blythe, and
Robert G. Paquette

JULY 1990

Interim Report for Period August 1989-June 1990

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San Diego, CA 92152

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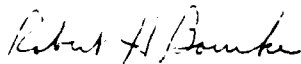
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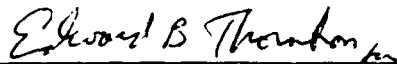


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USNS BARTLETT CRUISE
TO THE GREENLAND SEA IN SEPTEMBER 1989
DATA REPORT

by

Robert H. Bourke, Robert F. Blythe, and Robert G. Paquette

ABSTRACT

As a component of the Greenland Sea Project, a hydrographic cruise was conducted on board the USNS BARTLETT during September 1989 in the southern Greenland Sea to characterize the water mass structure and circulation features of the Jan Mayen Current (JMC). A total of 48 high-quality CTD stations were occupied to depths of 1000 m; five stations extended to 3000 m or more. Five north-south trending transects permitted tracking of the JMC by its low temperature ($< 0^{\circ}\text{C}$), low salinity near-surface core. The JMC could also be well defined from its warm, saline intermediate water properties. Deep stations made in the trough of the Jan Mayen Fracture Zone suggest that the interchange of deep and bottom water from the Greenland and Norwegian Seas via this trough is a slow diffusive process and not an active advective feature as previously thought.

I. INTRODUCTION

In support of the multinational Greenland Sea Project (GSP) a hydrographic cruise was conducted on board USNS BARTLETT (T-AGOR-13) during the month of September 1989 by personnel from the Naval Postgraduate School (NPS), Scripps Institution of Oceanography, and the University of Paris. The cruise statistics are presented in Table 1. The GSP is a five year effort to monitor the water mass and current structure of the Greenland Sea on a nearly continuous basis. Such monitoring is necessary as the Greenland Sea acts as the gateway between the cold, fresh polar waters of the Arctic Ocean and the warm, salty waters of the Atlantic Ocean. Climatological changes in one basin are transmitted to the other through the Greenland Sea.

The Greenland Sea is dominated by a broad cyclonic circulation. Polar Water (PW) exiting the Arctic basin flows southward along the east coast of Greenland. Between 72°N and 74°N a branch of the PW flows eastward, presumably guided by bathymetric fracture zones, to eventually join with the northward flowing Norwegian-Atlantic Current near the mid-ocean ridge system. This eastward flowing branch, termed the Jan Mayen Current (JMC), is a major source of ice and fresh water to the circulation in the Greenland Basin. Characterizing the properties of this current was the major objective of the BARTLETT 89 cruise.

Table 1. BARTLETT Cruise Statistics

Vessel: USNS BARTLETT (T-AGOR-13)

Depart: Tromso, Norway 6 September 1989

Return: Trondheim, Norway 23 September 1989

Miles travelled: 2784 n mi

Number of shallow stations (0 - 1000 m): 43

Number of deep stations (3000 m): 5

Stations 2,11,21,40, and 48

Total stations: 48

Instrumentation: Neil Brown MK III CTD with 12-place rosette sampler with 2 liter Niskin bottles and low temperature range (-2°C to +2°C) reversing thermometers

Nominal bottle depths:

Shallow stations: 1000, 900, 800, 700, 600, 500, 400, 300, 200, 100, 75, and 10 m

Deep stations: 3000, 2800, 2600, 2400, 2200, 2000, 1800, 1600, 1400, 1100, 700, and 300 m

Thermometers usually on bottles at 1000, 800, and 75 m depth

Scientific Party:

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Professor Jean-Claude Gascard, NPS and University of Paris

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II. OBJECTIVES

Other than surveys conducted throughout the summer and winter of 1958 as part of the International Geophysical Year (IGY) (Dietrich, 1969), the winter cruise of the HUDSON in 1982, and the spring cruise of the METEOR in 1982 (Koltermann and Luthje, 1989) few observations have been made of the JMC, the southern limb of the Greenland Sea gyre. The purpose of the cruise was to measure and quantify specific features of this current such as its speed, volume flow rate, areal extent, water properties, and fresh water contribution. Data were collected to address the following specific objectives:

1. Determine the latitudinal extent of the eastward flow, i. e., establish the northern and southern boundaries of the JMC as it departs from the East Greenland Current (EGC),
2. Establish its relation to the bathymetric fracture zones which are presumed to steer it,
3. Determine the eastward extent of the JMC,
4. Determine the frontal characteristics of the northern and southern boundaries of the JMC,
5. Determine the flow rate of the JMC based on geostrophic calculations and ice drift rates, and
6. Determine the volume of fresh water carried into the Greenland gyre by the JMC.

In addition to the hydrographic survey, there were two ancillary objectives relating to the GSP.

1. Install four autonomous listening arrays (ALSs) on shallow (< 2000 m) promontories. These arrays are designed to track the motion of SOFAR floats. The floats, nominally drifting at 100 m or 1000 m depth, were deployed in the Arctic Ocean north of Svalbard last summer (1988) as part of the CEAREX Project.

2. Make deep water CTD casts to re-affirm the theory of formation of Norwegian Sea Deep Water (NSDW). The prevalent theory (Swift and Koltermann, 1988) is that NSDW is derived from a mixture of Eurasian Basin Deep Water (EBDW) and Greenland Sea Deep Water (GSDW). The product of this mixture, "new" NSDW, is thought to enter the Norwegian Sea principally via a trough in the deep fracture zone just north of Jan Mayen Island.

An analysis of the cruise data which addresses these objectives is reported in the Master's thesis of Blythe (1990).

III. CRUISE PLAN

In order to achieve the objectives outlined above a series of north-south trending hydrographic lines were laid out from 72°N to 75°N which were expected to pass through the anticipated course of the Jan Mayen Current. The positions of these hydrographic lines were based on a CTD

station census plan produced by the GSP Steering Committee to aid GSP participants in setting up their cruise plans (Figure 1). The desired goal of the census plan is to achieve as many repeat samplings of the water column as possible during the five years of the project in order to establish seasonal and interannual fluctuation statistics. Also shown on this chart is the location of an intercalibration site (71°N , 4°E) near the center of the Lofoten Basin whose purpose is to determine the uniformity of deep water measurements among GSP investigators.

The position of the actual CTD stations and cruise track are shown in Figure 2 and listed in Table 2. As can be seen, our stations are more closely spaced (35 to 50 km apart), often with two or more stations located between a pair of GSP primary stations. To optimize our station plan within the time constraints of the cruise, it was necessary to limit most of the CTD observations to 1000 m depth. Water samples were collected at 12 depths at approximately 100 m intervals for salinity and dissolved oxygen measurements. At appropriate locations deep water CTD casts to 3000 m (or the sea bottom) were made to assess the nature of the deep water; their locations are shown in Figure 2 with solid circles. Deep water samples were nominally collected at 200 m intervals over the 1000 m to 3000 m depth range. See Table 1 for specific details.

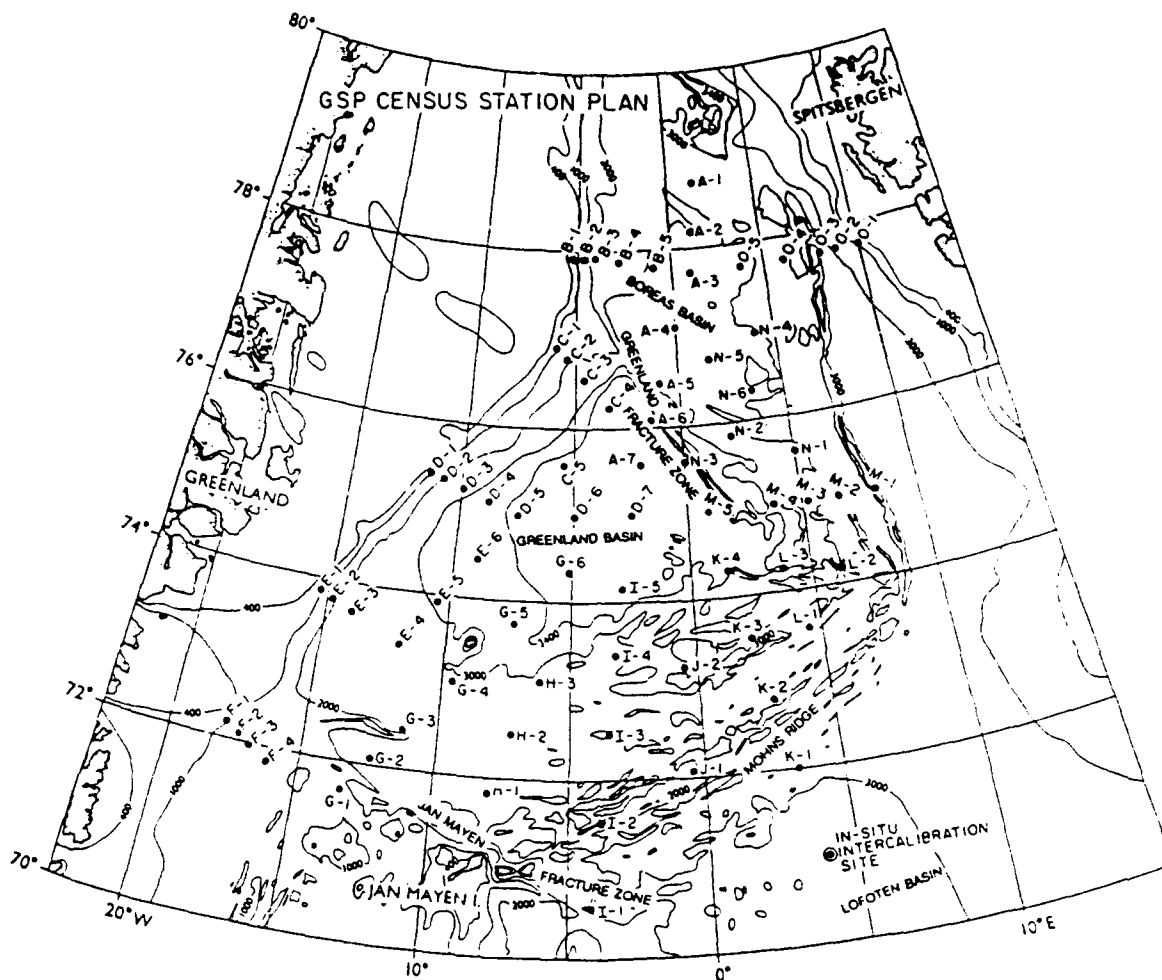


Figure 1. Hydrographic sampling plan for the Greenland Sea Project. The intercalibration site in the Lofoten Basin is to be sampled by all participants in the GSP to aid in intercomparison of data. Bottom contours (meters) and major bathymetric features are shown.

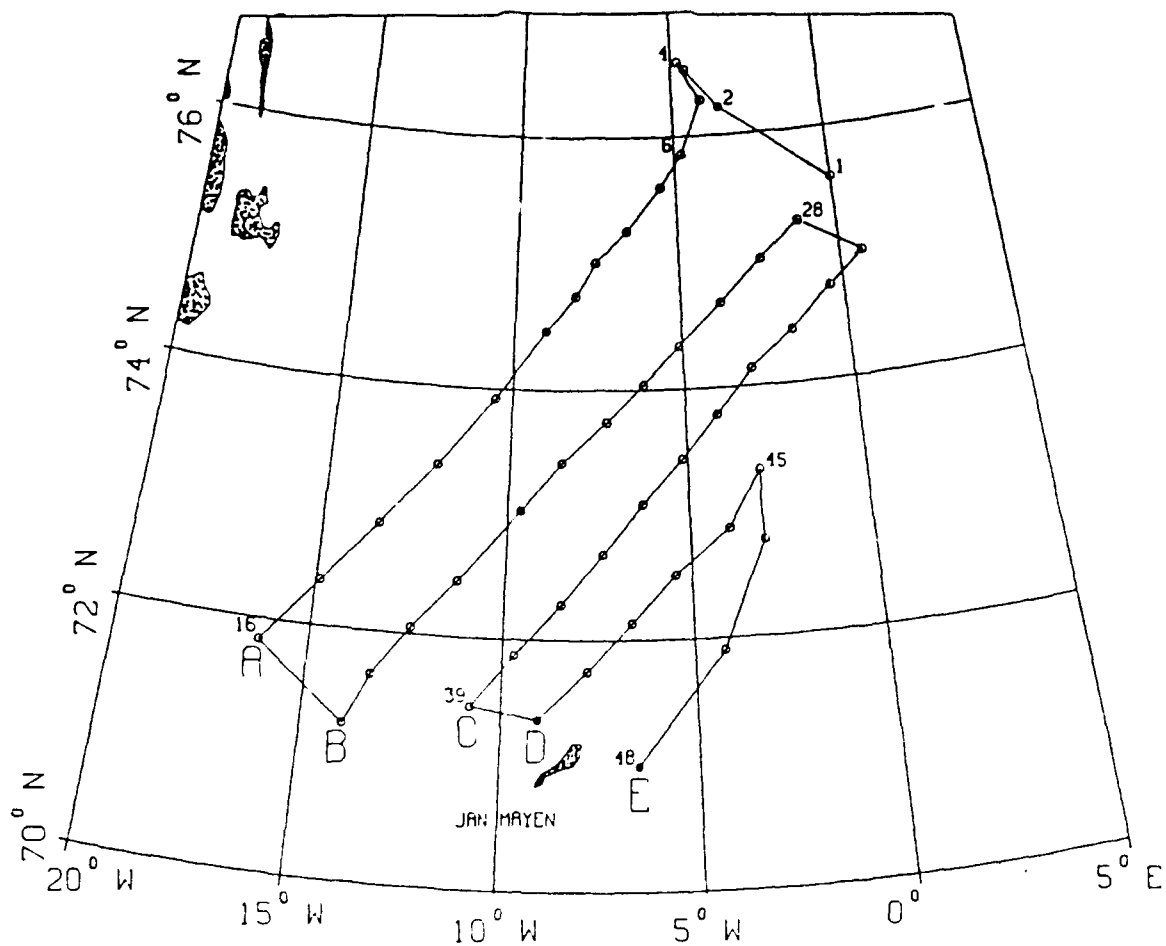


Figure 2. Trackline and location of CTD stations during the BARTLETT 89 cruise to the Greenland Sea. CTD stations extending to near bottom (3000 m) are denoted by solid circles. The location of vertical cross-sections are shown as Transects A through E.

Table 2. CTD Station Data

Sta	Lat (deg-min)	Long (deg-min)	Date	Hour	Bottom depth (m)
1	75-35.3N	000-00.0E	9	17.5	3750
2*	76-13.7N	003-27.7W	10	04.8	3580
3	76-32.5N	004-32.6W	10	11.6	2690
4	76-36.1N	004-47.1W	10	13.9	2290
5	76-17.5N	004-03.8W	10	18.3	3510
6	75-51.6N	004-46.8W	11	01.5	3410
7	75-35.8N	005-30.5W	11	05.6	3410
8	75-15.4N	006-38.0W	11	10.4	3440
9	75-00.7N	007-36.3W	11	14.1	3360
10	74-44.9N	008-12.1W	11	17.3	3320
11*	74-28.1N	009-03.1W	11	20.9	3230
12	73-55.3N	010-30.5W	12	05.5	3010
13	73-22.7N	012-01.9W	12	11.0	2740
14	72-52.4N	013-28.4W	12	16.4	2450
15	72-22.2N	014-52.0W	12	21.8	1950
16	71-49.9N	016-15.7W	13	03.1	1120
17	71-14.4N	013-56.7W	13	10.1	930
18	71-39.4N	013-20.9W	13	14.5	1740
19	72-03.3N	012-24.7W	13	19.0	2350
20	72-27.1N	011-16.4W	14	02.8	490
21*	73-02.1N	009-38.5W	14	13.4	2880
22	73-25.1N	008-33.1W	14	21.0	2970
23	73-44.7N	007-17.4W	15	02.6	3240
24	74-02.4N	006-13.9W	15	06.4	3380
25	74-20.5N	005-06.5W	15	10.4	3460
26	74-40.6N	003-49.4W	15	14.8	3740
27	75-00.1N	002-30.6W	15	19.0	3640
28	75-16.4N	001-13.1W	15	22.9	3690
29	74-59.2N	000-42.7E	16	08.5	3710
30	74-44.6N	000-25.2W	16	12.1	3710
31	74-25.4N	001-42.3W	16	15.9	3640
32	74-08.4N	003-01.1W	16	19.8	3600
33	73-47.4N	004-06.3W	16	23.8	3690
34	73-26.7N	005-09.5W	17	04.0	3030
35	73-05.3N	006-17.0W	17	08.2	2600
36	72-41.1N	007-25.4W	17	12.5	2300
37	72-17.0N	008-30.0W	17	17.0	2520
38	71-52.2N	009-42.7W	17	21.6	2500
39	71-27.0N	010-47.1W	18	02.4	1800
40*	71-21.4N	009-04.7W	18	08.3	2220
41	71-44.8N	007-49.0W	18	17.5	2000
42	72-08.1N	006-38.5W	19	00.1	2880
43	72-31.0N	005-26.1W	19	05.4	2640
44	72-52.8N	003-57.3W	19	14.2	2050
45	73-20.0N	003-01.4W	19	19.1	3000
46	72-46.5N	003-01.6W	19	23.9	2790
47	71-54.4N	004-14.5W	20	06.8	1070
48*	70-59.1N	006-31.1W	20	14.9	3610

* Deep Cast (>1000 dbar)

IV. INSTRUMENT CALIBRATION

A basic philosophy of the GSP was calibration of instruments from all participants at a common location. This was to insure that data could be interchanged among all participants with no instrument biases. To achieve this goal all CTD's were calibrated, both statically and dynamically, at the Ocean Data Facility of Scripps Institution of Oceanography (ODF/SIO). The NPS four-sensor Neil Brown MK III CTD was shipped to the ODF for pre-cruise calibration. A post-cruise calibration was also conducted by the ODF. These two calibrations comprised the temperature and pressure corrections. While at sea David Muus, a member of the ODF staff, ran salinity and dissolved oxygen samples for us. A 12-place rosette sampler was provided by the ODF as well as three racks of low-temperature (-2°C to $+2^{\circ}\text{C}$) reversing thermometers. Water samples were collected at all but two stations. In order to further enhance the intercomparison of data among GSP investigators all salinities were run against a common lot of oceanographic standard water (Wormley batch number 108).

The CTD data acquisition program is designed to permit 8616 data bytes to be collected, evenly spaced over the depth range selected prior to lowering. Hence, for our nominal 1000 m depth casts, approximately nine observations

would be collected per meter. The instrument was lowered at a nearly constant rate of 60 m min^{-1} , varying with the roll of the ship. Deep casts were done in two segments, 0 to 1000 m and 1000 m to 3000 m. The sampling rate for the deep segments was 4.3 observations per meter.

The temperature sensor was calibrated at temperatures throughout the useful range to an accuracy better than 0.001°C . The post-cruise corrections were 0.002°C smaller and an average between the two correction curves was applied. There was a narrow region near 0°C where the output of the CTD could be double-valued with a maximum difference of 0.0014°C , depending on the direction from which 0° was approached. Considering both of these non-idealities, the use of a single correction equation for temperature results in general accuracies of about $\pm 0.002^{\circ}\text{C}$.

The pressure sensor was calibrated to accuracies better than 1 dbar. The post-cruise calibration was similar in form to the pre-cruise calibration but had shifted negative by 0.001 dbar. However, the calibration under increasing pressure differed from that under decreasing pressure by a maximum of 6 dbar. Principally because of this hysteresis the final pressures are deemed accurate only to ± 3 dbar.

The salinity correction was found to be pressure-sensitive, the correction varying not completely regularly with time over a range of 0.043 PSU at 3000 dbar and a range

of 0.012 PSU below 1000 dbar. The deep lowerings of the five deep stations therefore were corrected individually while all the remaining lowerings were corrected with a single regression equation. Accuracies in salinity were judged by comparing the final edited salinities from the down traverse of the CTD with the bottle salinities obtained on the up traverse. Mean offsets were not significant and on the deep lowering the standard deviation of the comparisons was 0.0023 PSU.

In the shallow lowerings, the differences were high near the surface, presumably because the same water column was not being sampled on the up and down traverses. Outliers therefore were removed to arrive at a standard deviation in salinity of 0.003 PSU.

VI. ACKNOWLEDGEMENTS

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Koltermann, K. P. and H. Luthje, Hydrographic atlas of the Greenland and northern Norwegian Seas (1979-1987), Deutsches Hydrographisches Institut, Nr. 2328, Hamburg, 1989.

Swift, J. H. and K. P. Koltermann, The origin of Norwegian Sea deep water, J. Geophys. Res., 93(C4), 3563-3569, 1988.

APPENDIX A

For each CTD cast station identification and position information based upon satellite navigation are listed as well as environmental conditions at the time of the cast. The edited data, originally recorded at about 9 samples per meter or at approximately 10 cm intervals, are shown subsampled at approximately standard depths. The data for the five deep stations (2, 11, 21, 40, and 48) are listed at 200 m intervals for depths below 1000 m.

Abbreviations and units should be mostly self evident. We have chosen units for electrical conductivity and for the specific volume anomaly (SVA) so that the tabulated data are numerically the same as the units conventionally used in oceanography prior to the advent of SI units.

Note that the dynamic depth, for lowerings not starting at zero pressure, is extrapolated down from the surface as though the water column above the topmost sample had the properties of that sample. There is little error if the top depth is within the mixed layer. The only shallow station with appreciable error is No. 29 which started at 35 m depth, a little below the mixed layer. At this depth the dynamic depth should be about 0.030 dynamic meters. All the deep stations have their dynamic depths in error. To correct, subtract from all values the dynamic depth of the

topmost record and add the dynamic depth from the bottom of the shallow lowering.

Final edited data tapes have been prepared and forwarded to NODC. These tapes list the data at one meter intervals to 1000 m and at two meter intervals below that.

STATION 1 75-35.3N 0- 0.0W 9/ 9/89 17.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 10/ 45, AIR TEMP. 4.0° C, DEW PT 4.0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁶	DYNDTH DYN M
0.0	3.481	34.532	1463.8	27.465	31.697	3.481	27.466	60.622	0.000
5.1	3.484	34.533	1463.9	27.466	31.703	3.484	27.467	60.591	0.003
10.0	3.476	34.532	1464.0	27.466	31.697	3.476	27.466	60.669	0.006
15.1	3.474	34.532	1464.0	27.467	31.698	3.473	27.467	60.640	0.009
20.0	3.474	34.531	1464.1	27.466	31.699	3.473	27.466	60.753	0.012
25.0	3.474	34.532	1464.2	27.466	31.702	3.473	27.467	60.748	0.015
30.0	3.466	34.531	1464.3	27.467	31.696	3.464	27.467	60.752	0.018
40.1	3.437	34.531	1464.3	27.469	31.676	3.435	27.470	60.567	0.024
50.0	0.346	34.581	1450.9	27.748	29.035	0.344	27.749	33.853	0.029
75.0	-1.230	34.692	1444.2	27.912	27.792	-1.232	27.913	18.035	0.035
100.1	-1.070	34.770	1445.5	27.969	27.996	-1.072	27.970	12.596	0.039
125.0	-0.572	34.837	1448.3	28.003	28.480	-0.576	28.003	9.526	0.042
150.0	-0.109	34.885	1450.9	28.019	28.922	-0.115	28.020	8.153	0.044
175.1	-0.158	34.885	1451.1	28.022	28.892	-0.164	28.022	7.860	0.046
200.0	-0.269	34.883	1451.0	28.025	28.807	-0.276	28.026	7.431	0.048
250.0	-0.293	34.892	1451.7	28.034	28.816	-0.301	28.035	6.554	0.051
300.0	-0.398	34.893	1452.1	28.040	28.749	-0.409	28.041	5.894	0.054
350.0	-0.442	34.897	1452.7	28.045	28.738	-0.454	28.046	5.288	0.057
400.1	-0.480	34.900	1453.4	28.049	28.730	-0.494	28.050	4.788	0.060
450.0	-0.550	34.897	1453.9	28.050	28.691	-0.566	28.051	4.530	0.062
500.1	-0.601	34.897	1454.5	28.052	28.671	-0.618	28.054	4.170	0.064
600.0	-0.733	34.895	1455.5	28.056	28.601	-0.754	28.058	3.398	0.068
700.0	-0.855	34.893	1456.6	28.061	28.541	-0.880	28.062	2.537	0.071
800.0	-0.915	34.895	1458.0	28.065	28.536	-0.944	28.066	1.804	0.073
900.0	-0.951	34.895	1459.5	28.066	28.549	-0.983	28.068	1.325	0.075
998.0	-1.065	34.891	1460.6	28.067	28.493	-1.100	28.069	0.647	0.075

STATION 2 76-15.4N 3-30.7W 9/10/89 5.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 11/ 35, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.271	33.382	1461.4	26.569	30.562	3.271	26.570	145.596	0.000
5.1	3.273	33.384	1461.5	26.570	30.567	3.273	26.571	145.549	0.007
10.0	3.279	33.387	1461.6	26.572	30.578	3.278	26.573	145.362	0.015
15.0	3.467	33.714	1462.9	26.815	31.013	3.466	26.816	122.361	0.022
20.1	3.695	34.083	1464.5	27.087	31.521	3.694	27.088	96.624	0.027
25.0	3.693	34.098	1464.5	27.099	31.533	3.692	27.099	95.571	0.032
30.0	3.774	34.211	1465.1	27.181	31.700	3.772	27.181	87.844	0.036
40.0	3.096	34.590	1462.9	27.549	31.424	3.094	27.549	53.048	0.043
50.0	1.392	34.687	1455.8	27.767	30.018	1.390	27.767	32.258	0.047
75.0	-0.662	34.756	1446.9	27.941	28.319	-0.664	27.941	15.460	0.053
100.0	-0.903	34.791	1446.3	27.980	28.153	-0.906	27.980	11.641	0.056
125.0	-0.759	34.839	1447.4	28.013	28.322	-0.763	28.014	8.502	0.059
150.0	-0.709	34.851	1448.1	28.020	28.385	-0.714	28.021	7.786	0.061
175.0	-0.691	34.860	1448.6	28.026	28.418	-0.697	28.027	7.141	0.063
200.1	-0.645	34.870	1449.2	28.033	28.476	-0.652	28.034	6.503	0.064
250.1	-0.693	34.876	1449.9	28.040	28.463	-0.701	28.041	5.714	0.067
300.0	-0.857	34.872	1449.9	28.044	28.343	-0.866	28.045	5.109	0.070
350.0	-0.889	34.875	1450.6	28.047	28.341	-0.899	28.048	4.635	0.072
400.0	-0.823	34.881	1451.7	28.049	28.424	-0.836	28.050	4.412	0.075
450.1	-0.851	34.882	1452.4	28.052	28.424	-0.866	28.053	4.004	0.077
500.0	-0.905	34.881	1453.0	28.053	28.400	-0.922	28.054	3.673	0.079
600.0	-1.028	34.877	1454.1	28.054	28.338	-1.048	28.056	3.074	0.082
700.1	-1.064	34.881	1455.6	28.059	28.354	-1.087	28.060	2.305	0.085
800.1	-1.089	34.884	1457.2	28.063	28.380	-1.116	28.064	1.591	0.087
900.0	-1.041	34.890	1459.1	28.066	28.469	-1.073	28.067	1.140	0.088
998.0	-1.084	34.891	1460.5	28.068	28.477	-1.119	28.070	0.515	0.089

STATION 2 76-13.7N 3-27.7W 9/10/89 7.1 HRS GMT, 988 RECORDS
WIND KNOTS/DIR 10/ 0, AIR TEMP. 3.4° C, DEW PT 3.4° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDS PD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
998.0	-1.047	34.888	1460.7	28.064	28.506	-1.082	28.066	0.977	0.000
1000.1	-1.046	34.888	1460.7	28.064	28.507	-1.082	28.066	0.971	0.000
1200.0	-1.053	34.892	1464.1	28.068	28.591	-1.098	28.070	0.014	0.001
1400.1	-1.052	34.896	1467.4	28.071	28.680	-1.107	28.073	-0.783	0.000
1600.0	-1.057	34.896	1470.8	28.071	28.760	-1.123	28.074	-1.379	-0.002
1800.1	-1.048	34.897	1474.2	28.072	28.852	-1.125	28.075	-1.977	-0.005
2000.1	-1.039	34.900	1477.7	28.073	28.942	-1.129	28.077	-2.628	-0.010
2200.1	-1.039	34.900	1481.1	28.074	29.023	-1.142	28.078	-3.205	-0.016
2400.0	-1.052	34.900	1484.5	28.074	29.092	-1.168	28.079	-3.845	-0.023
2600.0	-1.053	34.897	1487.9	28.072	29.166	-1.184	28.077	-4.156	-0.031
2800.0	-1.055	34.897	1491.3	28.072	29.242	-1.200	28.078	-4.681	-0.039
2970.0	-1.050	34.897	1494.3	28.072	29.311	-1.208	28.078	-5.091	-0.048

STATION 3 76-32.8N 4-33.4W 9/10/89 11.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 9/360, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	0.856	32.452	1449.4	26.005	27.802	0.856	26.005	199.185	0.000
5.0	1.347	32.806	1452.2	26.259	28.483	1.347	26.260	175.028	0.009
10.0	3.151	34.122	1462.0	27.170	31.074	3.150	27.171	88.654	0.015
15.0	3.531	34.264	1463.9	27.247	31.525	3.530	27.248	81.427	0.020
20.1	3.738	34.351	1465.0	27.296	31.782	3.737	27.297	76.817	0.024
25.0	4.625	34.655	1469.2	27.444	32.827	4.623	27.445	62.937	0.027
30.0	4.148	34.706	1467.4	27.537	32.448	4.146	27.537	54.174	0.030
40.0	2.346	34.755	1459.9	27.747	30.899	2.344	27.747	34.206	0.035
50.0	1.502	34.812	1456.4	27.859	30.211	1.500	27.859	23.582	0.037
75.1	1.293	34.866	1456.0	27.917	30.084	1.290	27.918	18.107	0.042
100.0	1.501	34.920	1457.4	27.946	30.318	1.496	27.946	15.552	0.047
125.0	1.447	34.933	1457.6	27.960	30.293	1.441	27.961	14.293	0.050
150.1	1.359	34.941	1457.6	27.972	30.234	1.352	27.973	13.157	0.054
175.0	1.162	34.936	1457.1	27.982	30.070	1.153	27.984	12.191	0.057
200.1	1.035	34.941	1457.0	27.996	29.976	1.026	27.997	10.963	0.060
250.1	1.048	34.954	1457.9	28.005	30.019	1.036	28.006	10.215	0.065
300.0	0.808	34.942	1457.6	28.012	29.825	0.794	28.013	9.538	0.070
350.1	0.481	34.923	1457.0	28.016	29.550	0.466	28.018	8.873	0.074
400.0	0.299	34.920	1456.9	28.024	29.413	0.282	28.026	7.972	0.079
450.1	0.167	34.916	1457.2	28.029	29.319	0.148	28.030	7.433	0.082
500.0	-0.008	34.910	1457.2	28.034	29.187	-0.028	28.035	6.728	0.086
600.0	-0.256	34.908	1457.7	28.045	29.018	-0.279	28.046	5.300	0.092
700.0	-0.423	34.907	1458.6	28.052	28.919	-0.450	28.054	4.195	0.097
800.0	-0.514	34.909	1459.9	28.058	28.887	-0.545	28.060	3.316	0.100
900.0	-0.527	34.915	1461.5	28.064	28.925	-0.563	28.066	2.613	0.103
998.0	-0.517	34.921	1463.2	28.068	28.981	-0.557	28.071	2.060	0.106

STATION 4 76-36.1N 4-47.1W 9/10/89 14.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 4/310, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	-0.385	31.528	1442.5	25.319	26.105	-0.385	25.320	264.340	0.000
5.0	-0.436	31.522	1442.3	25.316	26.063	-0.436	25.317	264.620	0.013
10.1	-0.349	31.646	1443.0	25.413	26.226	-0.349	25.413	255.399	0.027
15.0	0.979	32.553	1450.4	26.079	27.987	0.978	26.080	192.105	0.038
20.0	1.296	33.504	1453.2	26.823	28.996	1.295	26.824	121.537	0.046
25.2	3.042	34.014	1461.7	27.094	30.896	3.040	27.094	96.027	0.051
30.1	3.387	34.121	1463.4	27.147	31.288	3.385	27.148	91.008	0.056
40.0	3.643	34.482	1465.1	27.410	31.816	3.641	27.410	66.244	0.064
50.0	2.972	34.723	1462.7	27.666	31.428	2.969	27.667	41.950	0.069
75.1	2.011	34.848	1459.1	27.849	30.695	2.007	27.849	24.707	0.077
100.0	1.798	34.890	1458.7	27.899	30.554	1.793	27.900	20.012	0.082
125.1	1.711	34.876	1458.7	27.895	30.479	1.705	27.896	20.523	0.087
150.1	1.370	34.925	1457.6	27.959	30.231	1.362	27.960	14.394	0.091
175.0	1.047	34.911	1456.6	27.970	29.951	1.039	27.971	13.277	0.095
200.0	1.022	34.924	1456.9	27.983	29.950	1.013	27.984	12.169	0.098
250.0	0.801	34.927	1456.7	28.000	29.784	0.790	28.001	10.548	0.104
300.0	0.761	34.939	1457.4	28.011	29.781	0.747	28.013	9.514	0.109
350.0	0.593	34.934	1457.5	28.018	29.655	0.578	28.019	8.819	0.113
400.3	0.336	34.921	1457.1	28.023	29.446	0.319	28.025	8.134	0.117
450.0	0.171	34.917	1457.2	28.029	29.323	0.153	28.031	7.419	0.121
500.1	0.023	34.912	1457.3	28.033	29.215	0.003	28.035	6.823	0.125
600.1	-0.206	34.907	1457.9	28.042	29.060	-0.230	28.044	5.642	0.131
700.0	-0.358	34.906	1458.9	28.049	28.974	-0.386	28.050	4.642	0.136
800.0	-0.496	34.903	1459.9	28.053	28.898	-0.527	28.055	3.848	0.140
900.1	-0.533	34.908	1461.4	28.058	28.914	-0.569	28.060	3.132	0.144
998.0	-0.599	34.909	1462.8	28.062	28.902	-0.639	28.065	2.387	0.146

STATION 5 76-17.5N 4- 3.8W 9/10/89 18.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 11/ 0, AIR TEMP. 3.4° C, DEW PT 3.2° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
1.0	3.057	33.249	1460.3	26.482	30.270	3.057	26.483	153.860	0.002
5.3	3.065	33.248	1460.4	26.481	30.278	3.064	26.481	154.010	0.008
10.0	3.051	33.250	1460.4	26.484	30.270	3.050	26.484	153.762	0.015
15.0	3.090	33.326	1460.8	26.541	30.368	3.089	26.541	148.388	0.023
20.0	3.908	34.217	1465.5	27.173	31.819	3.906	27.173	88.531	0.030
25.0	3.427	34.557	1464.0	27.491	31.682	3.426	27.492	58.386	0.033
30.0	3.057	34.572	1462.6	27.538	31.370	3.055	27.538	53.997	0.036
40.0	1.806	34.581	1457.3	27.651	30.288	1.804	27.651	43.260	0.041
50.0	0.178	34.594	1450.2	27.769	28.903	0.177	27.769	31.902	0.045
75.0	-0.831	34.661	1446.0	27.871	28.106	-0.833	27.872	21.993	0.051
100.1	-0.905	34.744	1446.2	27.942	28.116	-0.908	27.943	15.220	0.056
125.0	-0.971	34.784	1446.4	27.977	28.101	-0.975	27.978	11.816	0.059
150.0	-0.605	34.833	1448.5	28.001	28.459	-0.610	28.002	9.635	0.062
175.2	-0.254	34.873	1450.6	28.016	28.800	-0.260	28.017	8.320	0.064
200.0	-0.204	34.878	1451.3	28.018	28.858	-0.211	28.019	8.154	0.066
250.0	-0.219	34.893	1452.1	28.031	28.880	-0.228	28.032	6.877	0.070
300.1	-0.383	34.890	1452.1	28.036	28.760	-0.394	28.037	6.222	0.073
350.0	-0.493	34.890	1452.5	28.042	28.690	-0.505	28.043	5.510	0.076
400.1	-0.553	34.891	1453.0	28.046	28.662	-0.567	28.047	5.016	0.078
450.2	-0.593	34.892	1453.7	28.048	28.651	-0.609	28.050	4.636	0.081
500.0	-0.688	34.888	1454.0	28.049	28.589	-0.705	28.050	4.383	0.083
600.0	-0.762	34.887	1455.4	28.052	28.571	-0.783	28.053	3.800	0.087
700.0	-0.882	34.883	1456.5	28.053	28.510	-0.906	28.055	3.205	0.090
800.0	-0.982	34.880	1457.7	28.055	28.467	-1.010	28.057	2.538	0.093
900.1	-1.030	34.883	1459.1	28.059	28.473	-1.062	28.061	1.767	0.096
998.0	-1.003	34.890	1460.9	28.064	28.545	-1.039	28.066	1.111	0.097

STATION 6 75-51.6N 4-46.8W 9/11/89 1.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 15/ 30, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.136	34.317	1462.1	27.327	31.216	3.136	27.328	73.728	0.000
5.0	3.155	34.263	1462.1	27.282	31.190	3.154	27.282	78.053	0.004
10.0	3.160	34.243	1462.2	27.266	31.181	3.160	27.266	79.627	0.008
15.0	3.087	34.472	1462.3	27.455	31.308	3.086	27.456	61.709	0.012
20.0	2.958	34.512	1461.9	27.499	31.230	2.957	27.500	57.575	0.015
25.0	2.662	34.518	1460.7	27.530	30.977	2.661	27.531	54.666	0.017
30.0	2.655	34.557	1460.8	27.562	31.005	2.653	27.562	51.686	0.020
40.0	1.869	34.647	1457.7	27.698	30.396	1.867	27.699	38.743	0.025
50.0	1.071	34.767	1454.4	27.853	29.802	1.069	27.853	24.076	0.028
75.0	1.037	34.878	1454.9	27.944	29.870	1.033	27.945	15.462	0.032
100.0	0.849	34.893	1454.4	27.969	29.730	0.844	27.970	13.139	0.036
125.1	0.740	34.905	1454.4	27.986	29.657	0.734	27.987	11.581	0.039
150.0	1.008	34.942	1456.0	27.998	29.930	1.002	27.999	10.562	0.042
175.0	0.628	34.922	1454.7	28.006	29.595	0.620	28.007	9.693	0.044
200.0	0.595	34.929	1455.0	28.014	29.584	0.586	28.015	8.972	0.047
250.0	0.208	34.916	1454.0	28.027	29.264	0.198	28.028	7.575	0.051
300.1	-0.030	34.908	1453.8	28.033	29.076	-0.042	28.034	6.788	0.054
350.0	-0.183	34.907	1453.9	28.040	28.967	-0.196	28.041	5.978	0.058
400.0	-0.261	34.908	1454.4	28.045	28.923	-0.276	28.046	5.439	0.061
450.0	-0.365	34.904	1454.7	28.047	28.854	-0.382	28.048	5.076	0.063
500.0	-0.372	34.908	1455.5	28.051	28.874	-0.390	28.052	4.667	0.066
600.0	-0.504	34.904	1456.6	28.053	28.803	-0.526	28.055	4.070	0.070
700.0	-0.668	34.893	1457.5	28.052	28.699	-0.694	28.053	3.735	0.074
800.0	-0.677	34.896	1459.1	28.055	28.739	-0.707	28.057	3.217	0.077
900.0	-0.744	34.900	1460.5	28.061	28.728	-0.778	28.063	2.322	0.080
998.0	-0.863	34.899	1461.6	28.066	28.670	-0.901	28.068	1.319	0.082

STATION 7 75-35.8N 5-30.5W 9/11/89 5.1 HRS GMT, 996 RECORDS
WIND KNOTS/DIR 20/ 25, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
3.0	3.271	34.353	1462.7	27.343	31.365	3.270	27.344	72.233	0.002
5.1	3.251	34.351	1462.7	27.344	31.347	3.250	27.344	72.202	0.004
10.0	3.250	34.353	1462.8	27.345	31.350	3.250	27.345	72.131	0.007
15.0	3.259	34.361	1462.9	27.351	31.367	3.258	27.351	71.602	0.011
20.0	3.264	34.376	1463.0	27.362	31.386	3.263	27.363	70.571	0.014
25.0	3.348	34.433	1463.5	27.399	31.509	3.346	27.400	67.067	0.018
30.0	3.202	34.463	1463.0	27.437	31.408	3.200	27.438	63.501	0.021
40.1	2.062	34.602	1458.4	27.647	30.528	2.060	27.648	43.606	0.026
50.0	0.720	34.666	1452.7	27.795	29.422	0.718	27.796	29.496	0.030
75.1	-0.644	34.726	1447.0	27.916	28.312	-0.647	27.917	17.794	0.036
100.0	-0.376	34.806	1448.7	27.969	28.611	-0.380	27.969	12.861	0.039
125.0	-0.188	34.847	1450.1	27.992	28.814	-0.192	27.992	10.703	0.042
150.0	0.212	34.898	1452.4	28.012	29.207	0.206	28.012	8.981	0.045
175.1	0.156	34.901	1452.6	28.018	29.173	0.149	28.018	8.393	0.047
200.1	0.047	34.899	1452.5	28.022	29.090	0.040	28.023	7.944	0.049
250.1	-0.227	34.894	1452.0	28.032	28.873	-0.236	28.033	6.823	0.052
300.0	-0.354	34.891	1452.3	28.036	28.786	-0.365	28.037	6.271	0.056
350.1	-0.475	34.893	1452.5	28.043	28.707	-0.487	28.044	5.403	0.059
400.0	-0.497	34.896	1453.3	28.047	28.713	-0.511	28.048	4.962	0.061
450.1	-0.585	34.894	1453.7	28.050	28.660	-0.600	28.051	4.539	0.063
500.0	-0.614	34.895	1454.4	28.052	28.658	-0.632	28.053	4.210	0.066
600.0	-0.698	34.891	1455.7	28.052	28.628	-0.719	28.054	3.834	0.070
700.1	-0.765	34.891	1457.0	28.055	28.616	-0.790	28.057	3.236	0.073
800.0	-0.809	34.892	1458.5	28.058	28.623	-0.838	28.059	2.694	0.076
900.0	-0.850	34.893	1460.0	28.060	28.633	-0.883	28.062	2.157	0.079
998.0	-0.859	34.903	1461.6	28.069	28.676	-0.897	28.071	1.079	0.080

STATION 8 75-15.4N 6-38.0W 9/11/89 10.1 HRS GMT, 998 RECORDS
WIND KNOTS/DIR 13/ 15, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.253	34.040	1462.2	27.095	31.090	3.253	27.096	95.695	0.000
5.1	3.253	34.040	1462.3	27.095	31.092	3.252	27.095	95.771	0.005
10.0	3.262	34.041	1462.4	27.095	31.103	3.262	27.095	95.813	0.010
15.0	3.249	34.040	1462.4	27.096	31.093	3.248	27.096	95.772	0.014
20.1	3.412	34.218	1463.4	27.222	31.386	3.411	27.223	83.810	0.019
25.0	3.408	34.256	1463.5	27.253	31.415	3.406	27.253	80.963	0.023
30.0	2.798	34.536	1461.4	27.532	31.113	2.796	27.533	54.491	0.027
40.0	0.330	34.662	1450.8	27.815	29.079	0.329	27.815	27.574	0.030
50.1	-0.462	34.708	1447.4	27.893	28.442	-0.464	27.894	20.021	0.033
75.0	-0.690	34.814	1446.9	27.989	28.339	-0.692	27.990	10.864	0.036
100.5	-0.295	34.873	1449.2	28.018	28.731	-0.298	28.019	8.199	0.039
125.0	-0.395	34.871	1449.2	28.022	28.655	-0.399	28.022	7.801	0.041
150.0	-0.605	34.871	1448.6	28.031	28.487	-0.610	28.032	6.768	0.042
175.0	-0.631	34.875	1448.9	28.036	28.481	-0.636	28.037	6.243	0.044
200.0	-0.583	34.887	1449.6	28.043	28.541	-0.590	28.044	5.561	0.046
250.0	-0.618	34.889	1450.2	28.047	28.536	-0.626	28.048	5.108	0.048
300.0	-0.647	34.892	1450.9	28.050	28.536	-0.657	28.051	4.687	0.051
350.0	-0.662	34.893	1451.7	28.052	28.548	-0.673	28.053	4.388	0.053
400.0	-0.677	34.896	1452.4	28.055	28.559	-0.691	28.056	4.001	0.055
450.1	-0.867	34.886	1452.4	28.055	28.413	-0.882	28.056	3.654	0.057
500.0	-0.942	34.884	1452.9	28.057	28.371	-0.958	28.058	3.271	0.059
600.1	-1.008	34.884	1454.2	28.059	28.360	-1.027	28.060	2.679	0.062
700.1	-1.022	34.885	1455.8	28.061	28.393	-1.046	28.062	2.213	0.064
800.0	-1.049	34.885	1457.4	28.062	28.415	-1.076	28.063	1.745	0.066
900.1	-1.046	34.887	1459.0	28.063	28.463	-1.077	28.065	1.354	0.068
996.0	-1.083	34.892	1460.5	28.069	28.478	-1.118	28.071	0.419	0.068

STATION 9 75- 0.7N 7-36.3W 9/11/89 14.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 15/ 30, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁶	DYNDTH DYN M
0.0	3.302	33.631	1461.8	26.764	30.794	3.302	26.765	127.091	0.000
5.0	3.301	33.630	1461.9	26.764	30.795	3.301	26.764	127.159	0.006
10.1	3.300	33.639	1462.0	26.771	30.804	3.299	26.772	126.501	0.013
15.0	3.253	33.866	1462.2	26.957	30.953	3.252	26.957	108.954	0.019
20.0	3.231	34.008	1462.4	27.072	31.054	3.230	27.072	98.059	0.024
25.0	2.758	34.383	1460.9	27.414	30.952	2.757	27.415	65.660	0.028
30.1	1.693	34.671	1456.7	27.731	30.257	1.691	27.732	35.563	0.031
40.0	0.391	34.699	1451.1	27.841	29.159	0.390	27.841	25.111	0.034
50.0	-0.408	34.742	1447.7	27.918	28.514	-0.410	27.919	17.681	0.036
75.0	-0.603	34.813	1447.3	27.985	28.412	-0.605	27.985	11.320	0.039
100.0	-0.643	34.849	1447.6	28.016	28.416	-0.646	28.016	8.319	0.042
125.0	-0.605	34.862	1448.2	28.024	28.470	-0.609	28.025	7.491	0.044
150.0	-0.666	34.868	1448.3	28.032	28.433	-0.671	28.032	6.718	0.045
175.0	-0.688	34.873	1448.6	28.037	28.430	-0.693	28.038	6.160	0.047
200.0	-0.748	34.873	1448.8	28.040	28.390	-0.754	28.040	5.821	0.048
250.0	-0.789	34.878	1449.4	28.046	28.382	-0.797	28.046	5.106	0.051
300.0	-0.820	34.880	1450.1	28.048	28.380	-0.829	28.049	4.734	0.054
350.0	-0.710	34.892	1451.5	28.053	28.506	-0.721	28.054	4.239	0.056
400.0	-0.798	34.889	1451.9	28.055	28.451	-0.811	28.056	3.892	0.058
450.0	-0.896	34.884	1452.2	28.055	28.387	-0.911	28.056	3.618	0.060
500.0	-0.925	34.888	1452.9	28.059	28.388	-0.941	28.060	3.089	0.061
600.1	-1.010	34.885	1454.2	28.060	28.359	-1.029	28.061	2.600	0.064
700.0	-1.032	34.886	1455.8	28.062	28.386	-1.055	28.063	2.097	0.067
800.0	-1.034	34.888	1457.4	28.064	28.430	-1.061	28.065	1.610	0.068
900.0	-1.077	34.885	1458.9	28.063	28.435	-1.108	28.064	1.299	0.070
998.0	-1.072	34.896	1460.6	28.072	28.491	-1.107	28.074	0.201	0.071

STATION 10 74-44.9N 8-12.1W 9/11/89 17.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 14/295, AIR TEMP. 3.5° C, DEW PT 3.3° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.358	34.089	1462.7	27.125	31.222	3.358	27.125	92.914	0.000
5.0	3.289	34.055	1462.4	27.104	31.137	3.289	27.105	94.900	0.005
10.2	3.308	34.155	1462.7	27.182	31.237	3.307	27.182	87.589	0.010
15.1	3.332	34.176	1463.0	27.196	31.278	3.331	27.197	86.244	0.014
20.2	3.330	34.182	1463.0	27.201	31.283	3.328	27.202	85.805	0.018
25.0	3.292	34.215	1463.0	27.231	31.280	3.291	27.231	83.042	0.022
30.0	1.553	34.675	1456.1	27.745	30.139	1.552	27.746	34.247	0.025
40.0	0.332	34.737	1450.9	27.875	29.138	0.330	27.876	21.858	0.028
50.0	-0.147	34.777	1448.9	27.933	28.762	-0.148	27.934	16.309	0.030
75.0	-0.336	34.855	1448.6	28.006	28.671	-0.338	28.007	9.366	0.033
100.0	-0.326	34.879	1449.1	28.025	28.709	-0.329	28.025	7.585	0.035
125.1	-0.479	34.877	1448.8	28.031	28.588	-0.483	28.031	6.933	0.037
150.0	-0.581	34.879	1448.7	28.037	28.514	-0.586	28.038	6.255	0.039
175.0	-0.644	34.880	1448.8	28.041	28.473	-0.650	28.041	5.833	0.040
200.1	-0.665	34.882	1449.2	28.043	28.467	-0.672	28.044	5.557	0.041
250.0	-0.706	34.884	1449.8	28.046	28.457	-0.714	28.047	5.109	0.044
300.0	-0.730	34.888	1450.5	28.051	28.464	-0.739	28.052	4.514	0.046
350.0	-0.776	34.888	1451.1	28.053	28.447	-0.787	28.054	4.228	0.049
400.0	-0.835	34.887	1451.7	28.055	28.418	-0.848	28.056	3.844	0.051
450.0	-0.921	34.884	1452.1	28.056	28.365	-0.936	28.057	3.544	0.052
500.2	-0.981	34.883	1452.7	28.058	28.337	-0.997	28.059	3.139	0.054
600.0	-1.049	34.872	1454.0	28.051	28.316	-1.069	28.052	3.360	0.057
700.0	-1.040	34.885	1455.7	28.061	28.378	-1.063	28.063	2.133	0.059
800.0	-1.105	34.882	1457.1	28.062	28.365	-1.132	28.063	1.634	0.061
900.0	-1.120	34.882	1458.7	28.062	28.396	-1.151	28.064	1.263	0.063
998.0	-1.070	34.894	1460.6	28.070	28.491	-1.105	28.072	0.386	0.064

STATION 11 74-28.3N 9- 3.7W 9/11/89 21.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 10/ 0, AIR TEMP. 3.3° C, DEW PT 3.2° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	2.824	32.516	1458.3	25.917	29.471	2.824	25.917	207.521	0.000
5.0	2.812	32.488	1458.3	25.895	29.441	2.812	25.896	209.598	0.010
10.0	2.944	33.041	1459.7	26.326	30.007	2.943	26.327	168.719	0.020
15.0	2.965	33.480	1460.4	26.675	30.388	2.964	26.675	135.667	0.028
20.0	2.452	34.568	1459.8	27.588	30.832	2.451	27.589	49.123	0.032
25.1	1.326	34.640	1455.0	27.733	29.912	1.325	27.734	35.355	0.034
30.0	0.697	34.671	1452.3	27.800	29.397	0.696	27.801	28.977	0.035
40.0	0.137	34.736	1450.0	27.885	28.969	0.135	27.886	20.855	0.038
50.0	0.150	34.795	1450.3	27.932	29.030	0.148	27.933	16.447	0.040
75.0	0.511	34.907	1452.5	28.002	29.438	0.508	28.002	9.937	0.043
100.1	0.422	34.906	1452.5	28.006	29.372	0.418	28.007	9.533	0.046
125.0	0.143	34.892	1451.7	28.011	29.132	0.138	28.012	8.990	0.048
150.1	-0.004	34.893	1451.4	28.019	29.018	-0.010	28.020	8.149	0.050
175.0	-0.217	34.889	1450.8	28.027	28.843	-0.223	28.028	7.305	0.052
200.0	-0.231	34.892	1451.2	28.031	28.845	-0.238	28.031	6.972	0.054
250.1	-0.524	34.883	1450.7	28.038	28.612	-0.532	28.039	6.048	0.057
300.0	-0.527	34.893	1451.5	28.046	28.640	-0.537	28.047	5.187	0.060
350.0	-0.605	34.892	1451.9	28.049	28.596	-0.617	28.050	4.753	0.062
400.1	-0.654	34.893	1452.5	28.052	28.577	-0.667	28.053	4.355	0.064
450.1	-0.730	34.891	1453.0	28.054	28.533	-0.745	28.055	3.976	0.066
500.1	-0.830	34.892	1453.4	28.059	28.472	-0.847	28.060	3.242	0.068
600.1	-0.958	34.882	1454.4	28.056	28.401	-0.978	28.057	3.061	0.072
700.0	-1.027	34.881	1455.8	28.058	28.386	-1.051	28.059	2.494	0.074
800.0	-1.010	34.885	1457.5	28.060	28.447	-1.038	28.062	1.997	0.077
900.0	-1.014	34.887	1459.2	28.062	28.490	-1.045	28.064	1.558	0.078
998.0	-1.016	34.894	1460.8	28.068	28.537	-1.052	28.070	0.716	0.080

STATION 11 74-28.1N 9- 3.1W 9/11/89 23.1 HRS GMT, 987 RECORDS
WIND KNOTS/DIR 6/ 80, AIR TEMP. 3.1° C, DEW PT 3.1° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
998.0	-1.072	34.878	1460.6	28.057	28.477	-1.107	28.059	1.557	0.000
1000.0	-1.072	34.878	1460.6	28.057	28.478	-1.107	28.058	1.596	0.000
1200.0	-1.075	34.889	1463.9	28.066	28.570	-1.120	28.068	0.138	0.002
1400.1	-1.070	34.892	1467.3	28.069	28.662	-1.125	28.071	-0.676	0.001
1600.0	-1.060	34.894	1470.8	28.070	28.756	-1.126	28.073	-1.321	-0.001
1800.1	-1.065	34.895	1474.1	28.071	28.836	-1.142	28.074	-1.994	-0.004
2000.0	-1.041	34.898	1477.7	28.072	28.940	-1.131	28.076	-2.534	-0.009
2200.0	-1.046	34.899	1481.1	28.073	29.016	-1.149	28.077	-3.145	-0.015
2400.0	-1.043	34.898	1484.5	28.072	29.097	-1.160	28.077	-3.616	-0.021
2600.0	-1.052	34.897	1487.9	28.071	29.167	-1.183	28.077	-4.125	-0.029
2800.0	-1.056	34.896	1491.3	28.071	29.240	-1.201	28.077	-4.611	-0.038
2968.0	-1.060	34.892	1494.2	28.068	29.298	-1.218	28.075	-4.833	-0.046

STATION 12 73-55.3N 10-30.5W 9/12/89 5.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 25/ 20, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPP m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	2.312	32.086	1455.4	25.614	28.698	2.312	25.615	236.310	0.000
5.0	2.312	31.953	1455.3	25.508	28.593	2.312	25.508	246.448	0.012
10.0	2.312	31.905	1455.4	25.470	28.556	2.311	25.470	250.048	0.025
15.1	2.324	31.898	1455.5	25.463	28.562	2.323	25.464	250.676	0.037
20.0	2.403	32.526	1456.8	25.959	29.140	2.402	25.960	203.554	0.049
25.0	2.132	33.321	1456.7	26.616	29.556	2.130	26.617	141.208	0.058
30.0	1.849	33.782	1456.2	27.007	29.687	1.847	27.008	104.167	0.064
40.0	1.663	34.113	1456.0	27.286	29.796	1.661	27.287	77.717	0.073
50.0	1.657	34.398	1456.5	27.515	30.019	1.654	27.515	56.126	0.079
75.0	1.034	34.623	1454.5	27.740	29.670	1.031	27.741	34.797	0.090
100.0	0.745	34.694	1453.7	27.815	29.487	0.741	27.816	27.647	0.098
125.1	0.693	34.775	1454.0	27.884	29.517	0.688	27.885	21.154	0.104
150.0	0.574	34.855	1454.0	27.956	29.487	0.568	27.957	14.392	0.108
175.0	0.415	34.872	1453.7	27.979	29.374	0.408	27.980	12.133	0.112
200.0	0.285	34.879	1453.5	27.992	29.279	0.278	27.993	10.889	0.115
250.0	0.043	34.876	1453.2	28.003	29.092	0.034	28.004	9.681	0.119
300.0	-0.210	34.878	1452.9	28.018	28.898	-0.221	28.019	8.079	0.124
350.0	-0.347	34.877	1453.1	28.024	28.804	-0.359	28.026	7.307	0.127
400.0	-0.484	34.881	1453.3	28.034	28.713	-0.498	28.035	6.177	0.131
450.0	-0.543	34.871	1453.9	28.029	28.678	-0.559	28.030	6.517	0.134
500.0	-0.570	34.873	1454.6	28.032	28.679	-0.587	28.033	6.169	0.137
600.1	-0.676	34.865	1455.7	28.030	28.628	-0.697	28.032	5.937	0.143
700.0	-0.761	34.863	1457.0	28.032	28.598	-0.786	28.034	5.407	0.149
800.0	-0.863	34.863	1458.2	28.037	28.556	-0.892	28.038	4.514	0.153
900.1	-0.939	34.859	1459.5	28.036	28.533	-0.971	28.038	4.122	0.158
998.0	-0.952	34.860	1461.1	28.037	28.565	-0.989	28.039	3.714	0.162

STATION 13 73-22.7N 12- 1.8W 9/12/89 11.1 HRS GMT, 998 RECORDS
WIND KNOTS/DIR 11/ 20, AIR TEMP. 3.6° C, DEW PT 3.4° C

PRESS DBAR	TEMP °C	SALITY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
1.0	1.276	30.638	1448.9	24.523	26.713	1.276	24.524	340.104	0.003
5.0	1.277	30.639	1448.9	24.524	26.716	1.277	24.524	340.073	0.017
10.0	1.277	30.639	1449.0	24.524	26.718	1.277	24.524	340.022	0.034
15.0	1.284	30.657	1449.2	24.538	26.740	1.284	24.539	338.645	0.051
20.0	0.609	33.446	1450.0	26.819	28.376	0.608	26.819	121.919	0.065
25.0	-0.265	34.112	1447.0	27.402	28.152	-0.266	27.402	66.588	0.069
30.0	0.252	34.285	1449.7	27.515	28.721	0.251	27.515	55.937	0.072
40.0	0.427	34.512	1451.0	27.688	29.048	0.426	27.689	39.529	0.077
50.1	0.898	34.662	1453.5	27.780	29.572	0.896	27.781	30.941	0.080
75.1	1.351	34.841	1456.2	27.893	30.114	1.347	27.894	20.371	0.087
100.0	1.199	34.865	1456.0	27.923	30.012	1.194	27.923	17.625	0.091
125.2	1.221	34.903	1456.5	27.952	30.073	1.215	27.953	14.943	0.095
150.0	1.071	34.906	1456.3	27.965	29.956	1.064	27.966	13.752	0.099
175.0	0.940	34.911	1456.1	27.978	29.858	0.932	27.979	12.516	0.102
200.1	0.868	34.917	1456.2	27.987	29.811	0.859	27.988	11.695	0.105
250.0	0.661	34.918	1456.1	28.001	29.656	0.650	28.002	10.316	0.111
300.0	0.481	34.924	1456.1	28.017	29.528	0.468	28.018	8.788	0.115
350.0	0.294	34.918	1456.1	28.023	29.385	0.279	28.025	8.046	0.120
400.0	0.040	34.907	1455.8	28.029	29.181	0.024	28.030	7.304	0.123
450.0	-0.150	34.903	1455.7	28.035	29.037	-0.168	28.036	6.450	0.127
500.0	-0.273	34.900	1456.0	28.040	28.953	-0.292	28.041	5.834	0.130
600.0	-0.456	34.896	1456.8	28.045	28.838	-0.479	28.047	4.905	0.135
700.2	-0.550	34.895	1458.0	28.049	28.802	-0.576	28.050	4.267	0.140
800.0	-0.637	34.891	1459.3	28.050	28.769	-0.667	28.051	3.835	0.144
900.1	-0.746	34.887	1460.4	28.051	28.717	-0.780	28.053	3.263	0.147
998.0	-0.788	34.888	1461.9	28.053	28.725	-0.826	28.055	2.708	0.150

STATION 14 72-52.4N 13-28.4W 9/12/89 16.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 8/ 20, AIR TEMP. 3.7° C, DEW PT 3.7° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
1.0	1.558	30.539	1450.0	24.427	26.853	1.558	24.427	349.296	0.003
5.1	1.556	30.539	1450.1	24.427	26.853	1.555	24.428	349.242	0.018
10.8	1.428	30.566	1449.6	24.457	26.778	1.428	24.457	346.414	0.038
15.0	1.445	30.569	1449.8	24.458	26.795	1.445	24.459	346.297	0.052
20.0	0.882	32.833	1450.4	26.310	28.128	0.881	26.310	170.222	0.069
25.0	0.414	34.118	1450.2	27.372	28.730	0.414	27.372	69.516	0.073
30.0	0.516	34.301	1451.0	27.513	28.958	0.515	27.514	56.105	0.077
40.1	0.645	34.615	1452.1	27.758	29.312	0.643	27.758	32.980	0.081
50.1	1.028	34.745	1454.2	27.838	29.747	1.026	27.838	25.487	0.084
75.0	1.088	34.849	1455.0	27.918	29.892	1.085	27.919	17.965	0.089
100.0	1.027	34.886	1455.2	27.952	29.879	1.022	27.953	14.831	0.093
125.0	0.945	34.901	1455.3	27.969	29.832	0.940	27.970	13.212	0.096
150.0	0.835	34.911	1455.2	27.984	29.756	0.829	27.985	11.807	0.100
175.0	0.789	34.919	1455.4	27.994	29.733	0.781	27.995	10.941	0.102
200.0	0.671	34.920	1455.3	28.002	29.643	0.662	28.003	10.144	0.105
250.0	0.467	34.921	1455.2	28.015	29.490	0.456	28.016	8.841	0.110
300.0	0.232	34.914	1455.0	28.023	29.305	0.220	28.024	7.965	0.114
350.0	0.016	34.909	1454.8	28.031	29.139	0.002	28.032	7.034	0.118
400.0	-0.132	34.905	1455.0	28.036	29.032	-0.147	28.037	6.409	0.121
450.0	-0.250	34.904	1455.3	28.042	28.953	-0.267	28.043	5.719	0.124
500.0	-0.378	34.901	1455.5	28.045	28.863	-0.397	28.047	5.147	0.127
600.0	-0.514	34.897	1456.5	28.048	28.789	-0.536	28.050	4.509	0.132
700.1	-0.599	34.896	1457.8	28.052	28.761	-0.625	28.053	3.879	0.136
800.0	-0.668	34.887	1459.1	28.047	28.739	-0.698	28.049	3.955	0.140
900.2	-0.759	34.886	1460.4	28.050	28.705	-0.793	28.052	3.264	0.143
998.0	-0.840	34.885	1461.6	28.053	28.679	-0.878	28.056	2.541	0.146

STATION 15 72-22.2N 14-52.0W 9/12/89 22.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 8/ 30, AIR TEMP. 3.5° C, DEW PT 3.5° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	1.167	30.831	1448.6	24.684	26.780	1.167	24.685	324.790	0.000
5.0	1.165	30.806	1448.7	24.665	26.761	1.165	24.665	326.651	0.016
10.1	1.505	31.237	1450.9	24.990	27.371	1.504	24.991	295.643	0.032
15.0	1.773	31.409	1452.4	25.110	27.724	1.772	25.111	284.225	0.046
20.0	1.741	31.417	1452.3	25.119	27.707	1.741	25.120	283.381	0.061
25.0	1.666	31.520	1452.2	25.206	27.732	1.665	25.207	275.059	0.075
30.0	1.006	32.748	1451.0	26.234	28.168	1.004	26.234	177.408	0.086
40.0	0.591	34.089	1451.2	27.338	28.864	0.589	27.338	72.747	0.097
50.1	1.057	34.446	1453.9	27.596	29.541	1.054	27.596	48.381	0.103
75.0	0.616	34.688	1452.7	27.819	29.360	0.613	27.819	27.277	0.112
100.0	1.077	34.865	1455.4	27.931	29.906	1.072	27.932	16.778	0.117
125.1	0.879	34.891	1455.0	27.966	29.766	0.873	27.966	13.537	0.121
150.1	0.736	34.912	1454.8	27.992	29.670	0.729	27.992	11.089	0.124
175.1	0.683	34.917	1455.0	27.999	29.640	0.675	28.000	10.395	0.127
200.0	0.612	34.920	1455.1	28.006	29.592	0.603	28.007	9.786	0.129
250.0	0.365	34.914	1454.8	28.016	29.397	0.355	28.017	8.738	0.134
300.0	0.139	34.908	1454.5	28.024	29.220	0.127	28.025	7.836	0.138
350.1	-0.062	34.903	1454.5	28.031	29.068	-0.075	28.032	6.983	0.142
400.1	-0.170	34.905	1454.8	28.038	28.999	-0.185	28.039	6.179	0.145
450.0	-0.252	34.903	1455.2	28.041	28.951	-0.269	28.042	5.764	0.148
500.0	-0.367	34.902	1455.5	28.045	28.873	-0.385	28.047	5.172	0.151
600.0	-0.524	34.900	1456.5	28.051	28.782	-0.546	28.053	4.249	0.155
700.1	-0.543	34.898	1458.1	28.051	28.810	-0.569	28.052	4.100	0.159
800.0	-0.589	34.899	1459.5	28.054	28.816	-0.619	28.056	3.557	0.163
900.0	-0.656	34.899	1460.9	28.057	28.803	-0.690	28.059	2.951	0.166
998.0	-0.708	34.900	1462.3	28.059	28.802	-0.747	28.062	2.355	0.169

STATION 16 71-49.9N 16-15.7W 9/13/89 3.1 HRS GMT, 998 RECORDS
WIND KNOTS/DIR 26/ 25, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
2.0	1.311	30.981	1449.5	24.797	27.012	1.311	24.797	314.078	0.006
5.3	1.314	30.982	1449.6	24.797	27.016	1.314	24.797	314.060	0.017
10.1	1.311	30.980	1449.6	24.795	27.014	1.310	24.796	314.183	0.032
15.0	1.301	30.982	1449.7	24.798	27.011	1.300	24.799	313.900	0.047
20.0	1.312	31.075	1449.9	24.872	27.095	1.312	24.872	306.876	0.063
25.0	1.367	31.284	1450.6	25.036	27.306	1.366	25.037	291.207	0.078
30.0	0.481	32.089	1447.7	25.733	27.232	0.480	25.734	224.908	0.091
40.1	-0.523	33.967	1445.9	27.297	27.836	-0.524	27.297	76.479	0.103
50.0	-0.732	34.069	1445.2	27.388	27.742	-0.734	27.388	67.807	0.110
75.0	-0.088	34.438	1449.1	27.657	28.569	-0.091	27.657	42.418	0.124
100.0	0.421	34.607	1452.1	27.765	29.142	0.417	27.765	32.331	0.133
125.0	1.046	34.772	1455.6	27.859	29.819	1.040	27.860	23.692	0.140
150.1	1.018	34.815	1455.9	27.895	29.840	1.011	27.896	20.312	0.145
175.0	0.624	34.810	1454.5	27.917	29.507	0.617	27.918	18.144	0.150
200.0	0.651	34.837	1455.1	27.937	29.562	0.642	27.938	16.303	0.154
250.1	0.833	34.884	1456.8	27.963	29.778	0.822	27.964	14.067	0.162
300.0	0.768	34.896	1457.4	27.976	29.754	0.754	27.978	12.814	0.168
350.0	0.764	34.910	1458.2	27.988	29.785	0.748	27.990	11.776	0.175
400.0	0.633	34.911	1458.4	27.997	29.695	0.616	27.999	10.886	0.180
450.0	0.483	34.908	1458.6	28.004	29.586	0.464	28.005	10.166	0.185
500.0	0.314	34.903	1458.7	28.010	29.459	0.292	28.012	9.378	0.190
600.0	-0.002	34.895	1458.9	28.021	29.225	-0.027	28.023	7.949	0.199
700.0	-0.206	34.891	1459.6	28.028	29.092	-0.234	28.030	6.827	0.206
800.0	-0.369	34.890	1460.5	28.036	28.996	-0.401	28.038	5.734	0.212
900.0	-0.478	34.889	1461.7	28.040	28.947	-0.513	28.042	4.937	0.218
998.0	-0.539	34.890	1463.0	28.044	28.939	-0.579	28.046	4.258	0.222

STATION 17 71-14.4N 13-55.4W 9/13/89 10.1 HRS GMT, 903 RECORDS
WIND KNOTS/DIR 10/ 15, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	2.971	33.977	1460.9	27.071	30.793	2.971	27.071	98.053	0.000
5.1	2.977	33.976	1461.0	27.070	30.801	2.977	27.070	98.170	0.005
10.0	2.924	33.985	1460.9	27.081	30.765	2.924	27.082	97.084	0.010
15.0	2.830	34.005	1460.6	27.106	30.702	2.829	27.106	94.817	0.015
20.0	2.804	34.008	1460.5	27.110	30.684	2.803	27.111	94.404	0.019
25.1	2.776	34.016	1460.5	27.119	30.668	2.774	27.119	93.619	0.024
30.0	2.732	34.033	1460.4	27.137	30.647	2.731	27.137	91.962	0.029
40.1	2.735	34.084	1460.7	27.177	30.695	2.732	27.178	88.168	0.038
50.0	1.051	34.430	1453.9	27.563	29.523	1.048	27.584	49.592	0.045
75.3	0.018	34.652	1449.9	27.824	28.821	0.016	27.824	26.649	0.053
100.0	0.131	34.735	1451.0	27.885	28.992	0.128	27.885	20.913	0.059
125.0	0.212	34.783	1451.8	27.919	29.108	0.207	27.920	17.708	0.064
150.0	0.292	34.816	1452.6	27.941	29.214	0.286	27.942	15.632	0.068
175.2	0.331	34.835	1453.3	27.954	29.274	0.324	27.955	14.435	0.072
200.0	0.420	34.851	1454.1	27.962	29.374	0.412	27.963	13.797	0.075
250.0	0.450	34.874	1455.1	27.979	29.440	0.439	27.980	12.294	0.081
300.0	0.517	34.894	1456.2	27.991	29.536	0.504	27.992	11.271	0.087
350.2	0.406	34.897	1456.6	28.000	29.466	0.391	28.001	10.332	0.093
400.0	0.334	34.900	1457.1	28.006	29.428	0.317	28.008	9.705	0.098
450.1	0.183	34.896	1457.2	28.012	29.318	0.165	28.014	9.019	0.102
500.1	0.046	34.890	1457.4	28.015	29.218	0.025	28.016	8.601	0.107
600.0	-0.095	34.892	1458.4	28.024	29.144	-0.119	28.025	7.525	0.115
700.0	-0.219	34.892	1459.5	28.030	29.082	-0.248	28.032	6.638	0.122
800.0	-0.355	34.890	1460.6	28.035	29.009	-0.387	28.037	5.791	0.128
900.0	-0.453	34.889	1461.8	28.039	28.968	-0.489	28.041	5.074	0.133
901.0	-0.454	34.889	1461.8	28.039	28.968	-0.490	28.041	5.062	0.133

STATION 18 71-39.4N 13-20.9W 9/13/89 14.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 16/ 40, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
1.0	2.173	31.853	1454.5	25.438	28.396	2.172	25.438	253.072	0.003
5.3	2.155	31.866	1454.5	25.450	28.394	2.154	25.450	251.931	0.014
10.0	1.978	31.935	1453.9	25.518	28.309	1.977	25.519	245.449	0.025
15.0	2.442	32.360	1456.6	25.823	29.034	2.441	25.824	216.483	0.037
20.0	-1.027	33.963	1443.2	27.313	27.405	-1.027	27.314	74.937	0.043
25.0	-1.365	34.113	1441.9	27.446	27.236	-1.365	27.447	62.295	0.046
30.1	-1.384	34.165	1442.0	27.490	27.261	-1.384	27.490	58.166	0.049
40.1	-1.168	34.241	1443.3	27.544	27.500	-1.169	27.544	53.053	0.055
50.0	-0.791	34.341	1445.3	27.611	27.893	-0.792	27.611	46.712	0.060
75.0	0.347	34.586	1451.3	27.752	29.051	0.344	27.753	33.484	0.070
100.0	1.283	34.765	1456.2	27.837	30.007	1.278	27.838	25.761	0.077
125.0	1.135	34.816	1456.0	27.888	29.931	1.130	27.889	20.944	0.083
150.0	1.045	34.838	1456.1	27.912	29.881	1.039	27.913	18.743	0.088
175.0	0.944	34.859	1456.1	27.936	29.821	0.936	27.937	16.502	0.092
200.0	0.944	34.878	1456.5	27.950	29.847	0.935	27.952	15.165	0.096
250.0	0.775	34.890	1456.6	27.971	29.733	0.764	27.972	13.231	0.103
300.0	0.640	34.897	1456.8	27.985	29.645	0.627	27.987	11.860	0.110
350.0	0.569	34.903	1457.3	27.995	29.611	0.554	27.996	10.972	0.115
400.0	0.442	34.904	1457.6	28.003	29.524	0.425	28.004	10.144	0.121
450.4	0.248	34.898	1457.5	28.010	29.375	0.229	28.011	9.311	0.125
500.5	0.085	34.896	1457.6	28.017	29.256	0.064	28.019	8.425	0.130
600.0	-0.187	34.890	1458.0	28.027	29.063	-0.211	28.028	7.082	0.138
700.0	-0.334	34.890	1459.0	28.034	28.983	-0.361	28.036	6.059	0.144
800.0	-0.437	34.889	1460.2	28.038	28.938	-0.469	28.040	5.334	0.150
900.0	-0.515	34.887	1461.5	28.040	28.914	-0.551	28.042	4.836	0.155
998.0	-0.569	34.888	1462.9	28.044	28.912	-0.609	28.046	4.188	0.159

STATION 19 72- 3.3N 12-24.7W 9/13/89 19.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 21/ 15, AIR TEMP. 3.3° C, DEW PT 3.3° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	1.756	31.051	1451.6	24.825	27.417	1.756	24.825	311.417	0.000
5.0	1.742	31.057	1451.6	24.831	27.413	1.742	24.831	310.824	0.016
10.0	1.637	31.175	1451.4	24.932	27.426	1.636	24.932	301.202	0.031
15.0	1.030	32.304	1450.3	25.876	27.835	1.029	25.876	211.426	0.044
20.0	-0.454	33.770	1445.6	27.135	27.738	-0.455	27.135	91.921	0.052
25.1	-1.236	34.076	1442.5	27.412	27.316	-1.237	27.413	65.556	0.056
30.0	-1.317	34.140	1442.3	27.467	27.298	-1.317	27.467	60.350	0.059
40.1	-0.992	34.296	1444.2	27.582	27.687	-0.993	27.582	49.461	0.064
50.1	-0.558	34.434	1446.6	27.676	28.157	-0.560	27.676	40.594	0.069
75.1	0.330	34.648	1451.3	27.803	29.084	0.327	27.804	28.656	0.077
100.1	1.249	34.816	1456.1	27.880	30.017	1.244	27.881	21.655	0.083
125.0	1.231	34.852	1456.5	27.910	30.042	1.225	27.911	18.874	0.088
150.0	1.137	34.868	1456.5	27.930	29.584	1.130	27.931	17.076	0.093
175.1	1.054	34.883	1456.6	27.947	29.935	1.046	27.948	15.478	0.097
200.0	0.952	34.893	1456.6	27.962	29.866	0.943	27.963	14.068	0.100
250.0	0.839	34.908	1456.9	27.982	29.803	0.828	27.983	12.246	0.107
300.0	0.732	34.913	1457.2	27.993	29.736	0.718	27.994	11.259	0.113
350.1	0.556	34.913	1457.3	28.004	29.608	0.541	28.005	10.113	0.118
400.0	0.302	34.904	1456.9	28.011	29.403	0.285	28.013	9.197	0.123
450.0	0.193	34.904	1457.3	28.017	29.333	0.175	28.019	8.544	0.127
500.0	0.013	34.899	1457.3	28.024	29.197	-0.007	28.025	7.709	0.132
600.0	-0.203	34.896	1457.9	28.032	29.054	-0.227	28.034	6.556	0.139
700.0	-0.392	34.891	1458.7	28.038	28.933	-0.419	28.040	5.584	0.145
800.0	-0.494	34.889	1459.9	28.041	28.889	-0.525	28.043	4.967	0.150
900.0	-0.569	34.887	1461.3	28.043	28.868	-0.604	28.045	4.448	0.155
998.0	-0.647	34.887	1462.5	28.047	28.845	-0.686	28.049	3.697	0.159

STATION 20 72-26.7N 11-16.7W 9/14/89 3.1 HRS GMT, 493 RECORDS
WIND KNOTS/DIR 20/ 10, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SICTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
1.0	1.644	30.682	1450.6	24.536	27.034	1.644	24.537	338.876	0.003
5.0	1.619	30.674	1450.5	24.531	27.010	1.619	24.532	339.335	0.017
10.1	1.611	30.690	1450.6	24.545	27.019	1.611	24.546	338.027	0.034
15.0	1.682	31.181	1451.7	24.934	27.469	1.681	24.935	300.982	0.050
20.0	1.077	33.857	1452.7	27.121	29.087	1.076	27.122	93.285	0.058
25.0	1.000	34.225	1453.0	27.422	29.310	0.999	27.422	64.815	0.062
30.0	0.686	34.387	1451.9	27.572	29.168	0.684	27.573	50.553	0.065
40.1	0.137	34.561	1449.8	27.744	28.837	0.135	27.744	34.252	0.069
50.1	0.413	34.590	1451.2	27.752	29.100	0.411	27.752	33.527	0.073
75.1	1.055	34.755	1454.8	27.845	29.791	1.052	27.845	24.900	0.080
100.1	1.400	34.855	1456.9	27.901	30.180	1.395	27.901	19.766	0.086
125.0	1.225	34.875	1456.5	27.929	30.054	1.219	27.930	17.103	0.090
150.0	1.135	34.889	1456.5	27.947	29.998	1.128	27.948	15.489	0.094
175.0	0.977	34.895	1456.3	27.962	29.878	0.969	27.963	14.041	0.098
200.0	0.867	34.901	1456.2	27.974	29.798	0.858	27.975	12.884	0.101
250.0	0.749	34.909	1456.5	27.989	29.726	0.738	27.990	11.560	0.107
300.0	0.683	34.911	1457.0	27.994	29.693	0.670	27.995	11.073	0.113
350.1	0.440	34.914	1456.8	28.012	29.508	0.425	28.013	9.292	0.118
400.0	0.307	34.905	1457.0	28.012	29.409	0.290	28.014	9.111	0.123
450.0	0.193	34.902	1457.3	28.016	29.331	0.174	28.018	8.644	0.127
493.0	0.046	34.894	1457.3	28.018	29.218	0.026	28.020	8.283	0.131

STATION 21 73- 2.0N 9-39.4W 9/14/89 13.1 HRS GMT, 995 RECORDS
WIND KNOTS/DIR 20/ 0, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁶	DYNDTH DYN M
5.0	2.330	31.280	1454.5	24.969	28.060	2.329	24.969	297.722	0.015
10.0	2.334	31.327	1454.7	25.006	28.104	2.333	25.007	294.160	0.030
15.0	2.581	32.117	1456.9	25.618	28.951	2.580	25.619	235.941	0.043
20.0	1.608	34.295	1455.7	27.436	29.882	1.607	27.436	63.485	0.049
25.0	1.404	34.449	1455.1	27.575	29.831	1.403	27.575	50.358	0.052
30.0	0.816	34.463	1452.5	27.625	29.338	0.815	27.626	45.559	0.055
40.0	0.230	34.638	1450.3	27.801	28.975	0.229	27.802	28.835	0.058
50.0	0.061	34.717	1449.8	27.874	28.895	0.059	27.875	21.904	0.061
75.0	0.096	34.813	1450.5	27.950	29.009	0.093	27.951	14.741	0.065
100.0	0.322	34.878	1452.0	27.990	29.264	0.318	27.990	11.061	0.068
125.0	0.334	34.898	1452.5	28.005	29.301	0.329	28.005	9.682	0.071
150.0	0.219	34.898	1452.4	28.012	29.214	0.213	28.012	8.976	0.073
175.1	0.156	34.899	1452.6	28.016	29.171	0.149	28.017	8.539	0.075
200.0	0.028	34.895	1452.4	28.020	29.070	0.020	28.021	8.131	0.077
250.0	-0.209	34.888	1452.1	28.027	28.885	-0.218	28.027	7.322	0.081
300.0	-0.357	34.891	1452.3	28.036	28.783	-0.368	28.037	6.258	0.084
350.0	-0.401	34.893	1452.9	28.040	28.770	-0.413	28.041	5.805	0.087
400.1	-0.529	34.889	1453.1	28.043	28.681	-0.542	28.044	5.318	0.090
450.0	-0.589	34.889	1453.7	28.045	28.652	-0.605	28.046	4.942	0.093
500.0	-0.639	34.887	1454.3	28.046	28.631	-0.657	28.048	4.671	0.095
600.0	-0.711	34.887	1455.6	28.049	28.614	-0.732	28.051	4.088	0.100
700.2	-0.827	34.882	1456.7	28.051	28.557	-0.852	28.052	3.532	0.103
800.0	-0.850	34.886	1458.3	28.054	28.584	-0.878	28.056	2.896	0.107
900.1	-0.867	34.888	1459.9	28.057	28.616	-0.900	28.059	2.364	0.109
998.0	-0.877	34.894	1461.5	28.062	28.654	-0.915	28.064	1.660	0.111

STATION 21 73- 2.1N 9-38.4W 9/14/89 16.1 HRS GMT, 914 RECORDS
WIND KNOTS/DIR 28/ 40, AIR TEMP. .0° C, DEW PT .0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
998.0	-0.936	34.893	1461.2	28.063	28.603	-0.973	28.065	1.352	0.000
1000.0	-0.937	34.893	1461.2	28.064	28.603	-0.974	28.066	1.302	0.000
1200.1	-0.971	34.897	1464.4	28.069	28.664	-1.017	28.071	0.235	0.002
1400.1	-0.987	34.894	1467.7	28.067	28.734	-1.043	28.069	-0.187	0.001
1600.1	-0.998	34.898	1471.1	28.070	28.811	-1.065	28.073	-1.085	0.000
1800.1	-1.006	34.900	1474.4	28.072	28.889	-1.084	28.076	-1.808	-0.003
2000.1	-1.016	34.902	1477.8	28.074	28.963	-1.106	28.078	-2.549	-0.007
2200.1	-1.040	34.900	1481.1	28.073	29.022	-1.143	28.078	-3.168	-0.013
2400.1	-1.054	34.899	1484.4	28.073	29.089	-1.170	28.078	-3.748	-0.020
2600.1	-1.064	34.897	1487.8	28.072	29.157	-1.194	28.077	-4.232	-0.028
2800.0	-1.073	34.894	1491.2	28.070	29.224	-1.218	28.076	-4.661	-0.037
2823.0	-1.072	34.892	1491.6	28.068	29.232	-1.218	28.074	-4.548	-0.038

STATION 22 73-25.1N 8-33.1W 9/14/89 21.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 19/ 15, AIR TEMP. 3.3° C, DEW PT 3.3° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	2.526	31.420	1455.5	25.065	28.329	2.526	25.066	288.506	0.000
5.0	2.525	31.420	1455.5	25.066	28.331	2.524	25.066	288.497	0.014
10.0	2.521	31.418	1455.6	25.064	28.328	2.520	25.065	288.609	0.029
15.0	2.673	32.616	1458.0	26.009	29.434	2.672	26.010	198.806	0.043
20.0	2.179	34.520	1458.5	27.573	30.555	2.178	27.573	50.575	0.047
25.0	1.531	34.608	1455.9	27.693	30.064	1.530	27.693	39.198	0.050
30.0	1.261	34.631	1454.8	27.730	29.851	1.259	27.731	35.616	0.051
40.0	0.710	34.741	1452.6	27.855	29.465	0.708	27.856	23.763	0.054
50.0	0.749	34.801	1453.0	27.901	29.549	0.746	27.902	19.461	0.056
75.0	0.847	34.880	1454.0	27.958	29.707	0.844	27.959	14.113	0.060
100.0	0.842	34.909	1454.4	27.983	29.737	0.838	27.983	11.883	0.064
125.0	0.694	34.911	1454.2	27.993	29.622	0.689	27.994	10.861	0.067
150.0	0.575	34.912	1454.1	28.002	29.531	0.568	28.003	10.063	0.069
175.0	0.433	34.909	1453.8	28.008	29.418	0.426	28.009	9.434	0.072
200.0	0.142	34.897	1452.9	28.015	29.169	0.134	28.016	8.673	0.074
250.0	-0.164	34.890	1452.3	28.026	28.924	-0.173	28.026	7.449	0.078
300.0	-0.269	34.893	1452.7	28.033	28.860	-0.280	28.034	6.597	0.081
350.2	-0.512	34.882	1452.4	28.036	28.667	-0.524	28.037	6.042	0.085
400.0	-0.534	34.886	1453.1	28.041	28.674	-0.547	28.042	5.532	0.087
450.2	-0.618	34.885	1453.5	28.043	28.624	-0.634	28.044	5.100	0.090
500.1	-0.652	34.884	1454.2	28.044	28.617	-0.669	28.046	4.847	0.092
600.0	-0.735	34.884	1455.5	28.048	28.592	-0.756	28.050	4.150	0.097
700.0	-0.740	34.890	1457.1	28.053	28.636	-0.765	28.055	3.480	0.101
800.0	-0.829	34.887	1458.4	28.055	28.603	-0.858	28.056	2.919	0.104
900.1	-0.971	34.877	1459.4	28.052	28.519	-1.003	28.054	2.565	0.107
998.0	-1.048	34.866	1460.6	28.046	28.488	-1.083	28.048	2.654	0.109

STATION 23 73-44.7N 7-18.8W 9/15/89 2.1 HRS GMT, 998 RECORDS
WIND KNOTS/DIR 19/ 25, AIR TEMP. 3.4° C, DEW PT 3.2° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
1.0	3.326	32.856	1460.9	26.144	30.172	3.325	26.145	185.953	0.002
5.2	3.328	32.856	1461.0	26.144	30.176	3.327	26.145	185.945	0.010
10.0	3.323	32.854	1461.0	26.143	30.173	3.323	26.144	186.074	0.019
15.0	3.447	33.057	1461.9	26.293	30.448	3.446	26.294	171.862	0.028
20.0	3.422	34.212	1463.5	27.216	31.389	3.420	27.217	84.380	0.035
25.0	2.694	34.516	1460.8	27.526	31.004	2.693	27.526	55.078	0.038
30.1	1.727	34.663	1456.9	27.722	30.281	1.726	27.723	36.429	0.040
40.0	0.171	34.715	1450.1	27.867	28.983	0.169	27.867	22.634	0.043
50.0	-0.473	34.748	1447.4	27.926	28.463	-0.474	27.926	16.945	0.045
75.0	-0.532	34.810	1447.6	27.979	28.469	-0.535	27.979	11.903	0.048
100.0	-0.664	34.840	1447.5	28.009	28.391	-0.667	28.010	8.938	0.051
125.1	-0.505	34.870	1448.7	28.027	28.561	-0.509	28.027	7.307	0.053
150.0	-0.471	34.876	1449.2	28.029	28.605	-0.476	28.030	7.019	0.055
175.0	-0.566	34.875	1449.2	28.033	28.535	-0.572	28.034	6.559	0.056
200.0	-0.600	34.879	1449.5	28.038	28.521	-0.607	28.039	6.067	0.058
250.0	-0.787	34.871	1449.4	28.040	28.379	-0.795	28.040	5.680	0.061
300.0	-0.735	34.878	1450.5	28.043	28.451	-0.745	28.044	5.259	0.064
350.1	-0.812	34.875	1451.0	28.044	28.407	-0.823	28.045	5.016	0.066
400.1	-0.802	34.879	1451.8	28.047	28.441	-0.815	28.048	4.608	0.068
450.0	-0.952	34.873	1452.0	28.048	28.332	-0.966	28.049	4.237	0.071
500.1	-1.020	34.870	1452.5	28.048	28.294	-1.035	28.049	3.963	0.073
600.0	-1.071	34.870	1453.9	28.051	28.296	-1.090	28.052	3.336	0.076
700.0	-1.090	34.869	1455.5	28.050	28.324	-1.113	28.052	3.027	0.080
800.0	-1.083	34.871	1457.2	28.052	28.376	-1.110	28.053	2.612	0.082
900.0	-1.090	34.869	1458.8	28.050	28.412	-1.121	28.052	2.434	0.085
998.0	-1.070	34.871	1460.6	28.051	28.473	-1.105	28.053	2.139	0.087

STATION 24 74- 2.4N 6-13.9W 9/15/89 6.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 5/ 30, AIR TEMP. 3.5° C, DEW PT 3.3° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.627	33.402	1462.9	26.551	30.884	3.627	26.552	147.285	0.000
5.0	3.624	33.398	1463.0	26.549	30.880	3.624	26.549	147.586	0.007
10.0	3.633	33.401	1463.1	26.550	30.893	3.632	26.551	147.462	0.015
15.0	3.676	33.424	1463.4	26.564	30.951	3.675	26.565	146.189	0.022
20.1	3.752	33.517	1463.9	26.631	31.097	3.751	26.632	139.866	0.029
25.0	3.614	33.915	1464.0	26.961	31.312	3.613	26.962	108.610	0.036
30.0	1.548	34.561	1456.0	27.654	30.044	1.546	27.654	42.902	0.040
40.2	0.273	34.683	1450.6	27.835	29.046	0.271	27.836	25.635	0.043
50.0	-0.225	34.739	1448.5	27.907	28.667	-0.227	27.907	18.806	0.045
75.0	-0.552	34.810	1447.5	27.980	28.453	-0.554	27.980	11.814	0.049
100.0	-0.591	34.836	1447.8	28.003	28.451	-0.594	28.004	9.551	0.051
125.0	-0.514	34.866	1448.6	28.023	28.550	-0.518	28.024	7.637	0.053
150.0	-0.412	34.885	1449.5	28.034	28.662	-0.417	28.035	6.599	0.055
175.0	-0.602	34.871	1449.0	28.032	28.502	-0.608	28.033	6.681	0.057
200.0	-0.572	34.881	1449.6	28.038	28.546	-0.579	28.039	6.044	0.058
250.0	-0.545	34.888	1450.6	28.043	28.598	-0.553	28.044	5.550	0.061
300.0	-0.722	34.877	1450.6	28.042	28.462	-0.731	28.043	5.417	0.064
350.1	-0.712	34.881	1451.4	28.044	28.496	-0.723	28.045	5.077	0.067
400.1	-0.680	34.885	1452.4	28.047	28.549	-0.694	28.048	4.795	0.069
450.0	-0.751	34.885	1452.9	28.049	28.511	-0.766	28.050	4.352	0.071
500.0	-0.832	34.882	1453.4	28.050	28.462	-0.849	28.051	4.054	0.073
600.1	-0.875	34.883	1454.8	28.053	28.472	-0.896	28.055	3.429	0.077
700.0	-0.960	34.879	1456.1	28.054	28.442	-0.984	28.055	3.000	0.080
800.0	-1.057	34.872	1457.3	28.052	28.399	-1.084	28.053	2.701	0.083
900.1	-1.097	34.868	1458.8	28.050	28.406	-1.128	28.052	2.425	0.086
998.0	-1.105	34.867	1460.4	28.050	28.441	-1.140	28.051	2.152	0.088

STATION 25 74-20.5N 5- 6.5W 9/15/89 10.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 10/ 40, AIR TEMP. 2.7° C, DEW PT 2.7° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.582	33.728	1463.2	26.815	31.117	3.582	26.816	122.266	0.000
5.0	3.607	33.769	1463.4	26.846	31.175	3.607	26.846	119.411	0.006
10.0	3.641	33.830	1463.7	26.891	31.258	3.641	26.892	115.137	0.012
15.0	3.697	33.962	1464.2	26.990	31.418	3.696	26.991	105.778	0.017
20.0	3.169	34.196	1462.4	27.228	31.155	3.167	27.228	83.291	0.022
25.0	2.984	34.329	1461.8	27.351	31.105	2.983	27.351	71.668	0.026
30.0	2.368	34.555	1459.5	27.585	30.752	2.366	27.585	49.509	0.029
40.0	-0.013	34.733	1449.3	27.891	28.839	-0.014	27.892	20.314	0.032
50.1	-0.488	34.771	1447.4	27.945	28.467	-0.490	27.946	15.120	0.034
75.0	-0.751	34.826	1446.6	28.002	28.296	-0.753	28.002	9.679	0.037
100.0	-0.842	34.847	1446.6	28.023	28.246	-0.845	28.023	7.597	0.039
125.0	-0.863	34.853	1447.0	28.028	28.244	-0.867	28.029	7.015	0.041
150.1	-0.878	34.859	1447.3	28.034	28.247	-0.882	28.035	6.407	0.043
175.0	-0.880	34.863	1447.7	28.037	28.259	-0.885	28.038	6.054	0.044
200.2	-0.798	34.869	1448.5	28.039	28.345	-0.804	28.040	5.868	0.046
250.0	-0.887	34.871	1449.0	28.044	28.295	-0.894	28.045	5.194	0.049
300.0	-0.991	34.867	1449.3	28.045	28.226	-1.000	28.046	4.886	0.051
350.0	-1.049	34.868	1449.9	28.048	28.201	-1.059	28.049	4.381	0.053
400.0	-1.048	34.870	1450.7	28.049	28.225	-1.061	28.050	4.119	0.056
450.0	-1.089	34.870	1451.3	28.051	28.213	-1.103	28.052	3.754	0.058
500.0	-1.108	34.868	1452.1	28.051	28.218	-1.124	28.052	3.617	0.059
600.0	-1.129	34.869	1453.6	28.052	28.247	-1.148	28.053	3.108	0.063
700.0	-1.131	34.870	1455.3	28.052	28.289	-1.154	28.054	2.768	0.066
800.2	-1.126	34.869	1457.0	28.052	28.338	-1.152	28.053	2.542	0.068
900.0	-1.144	34.867	1458.6	28.051	28.365	-1.175	28.053	2.217	0.071
998.0	-1.140	34.867	1460.2	28.051	28.411	-1.175	28.052	1.968	0.073

STATION 26 74-40.6N 3-49.4W 9/15/89 15.1 HRS GMT, 998 RECORDS
WIND KNOTS/DIR 24/ 25, AIR TEMP. 3.8° C, DEW PT 3.6° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
1.0	3.556	34.330	1463.9	27.298	31.596	3.556	27.298	76.545	0.001
5.0	3.547	34.327	1463.9	27.296	31.587	3.546	27.297	76.691	0.004
10.0	3.527	34.326	1463.9	27.297	31.571	3.526	27.298	76.665	0.008
15.1	3.525	34.326	1464.0	27.297	31.572	3.524	27.298	76.667	0.012
20.0	3.527	34.326	1464.1	27.297	31.576	3.526	27.298	76.719	0.015
25.1	3.258	34.342	1463.0	27.336	31.355	3.256	27.336	73.103	0.019
30.0	0.577	34.655	1451.7	27.795	29.281	0.576	27.795	29.484	0.022
40.0	-0.425	34.724	1447.4	27.904	28.480	-0.427	27.905	19.034	0.024
50.0	-0.743	34.760	1446.2	27.948	28.243	-0.744	27.948	14.833	0.026
75.0	-0.460	34.843	1448.0	28.002	28.556	-0.462	28.003	9.672	0.029
100.0	-0.330	34.871	1449.0	28.018	28.699	-0.333	28.019	8.178	0.031
125.0	-0.476	34.870	1448.8	28.025	28.585	-0.480	28.025	7.490	0.033
150.0	-0.620	34.866	1448.5	28.028	28.471	-0.625	28.029	7.043	0.035
175.0	-0.684	34.869	1448.6	28.033	28.430	-0.690	28.034	6.515	0.036
200.0	-0.711	34.871	1448.9	28.036	28.420	-0.718	28.037	6.180	0.038
250.4	-0.701	34.877	1449.8	28.041	28.457	-0.709	28.042	5.623	0.041
300.0	-0.781	34.875	1450.3	28.043	28.411	-0.790	28.044	5.256	0.044
350.1	-0.841	34.875	1450.8	28.045	28.382	-0.852	28.046	4.866	0.046
400.0	-0.906	34.873	1451.3	28.047	28.348	-0.919	28.048	4.537	0.048
450.0	-0.991	34.870	1451.8	28.047	28.297	-1.005	28.048	4.221	0.051
500.0	-1.018	34.871	1452.5	28.049	28.297	-1.033	28.050	3.871	0.053
600.0	-1.070	34.872	1453.9	28.052	28.298	-1.089	28.053	3.262	0.056
700.1	-1.095	34.870	1455.5	28.051	28.321	-1.118	28.052	2.957	0.059
800.0	-1.094	34.871	1457.1	28.052	28.367	-1.121	28.054	2.526	0.062
900.0	-1.105	34.870	1458.7	28.052	28.400	-1.136	28.053	2.256	0.064
998.0	-1.123	34.868	1460.3	28.051	28.426	-1.158	28.052	2.015	0.067

STATION 27 75- 0.1N 2-30.6W 9/15/89 19.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 15/ 10, AIR TEMP. 3.9° C, DEW PT 3.9° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDS PD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.595	34.387	1464.1	27.339	31.677	3.595	27.339	72.617	0.000
5.0	3.598	34.385	1464.2	27.337	31.680	3.598	27.338	72.826	0.004
10.1	3.589	34.385	1464.2	27.338	31.674	3.588	27.339	72.778	0.007
15.1	3.581	34.387	1464.3	27.340	31.671	3.580	27.341	72.622	0.011
20.0	3.582	34.387	1464.4	27.340	31.675	3.581	27.341	72.632	0.015
25.0	3.579	34.387	1464.5	27.341	31.675	3.578	27.341	72.645	0.018
30.0	3.573	34.388	1464.5	27.342	31.672	3.571	27.343	72.565	0.022
40.1	0.927	34.626	1453.4	27.749	29.564	0.926	27.749	33.861	0.029
50.0	-0.548	34.722	1447.0	27.909	28.380	-0.549	27.909	18.557	0.031
75.0	-0.726	34.795	1446.7	27.976	28.294	-0.728	27.976	12.163	0.035
100.0	-0.708	34.834	1447.3	28.006	28.349	-0.711	28.007	9.238	0.037
125.0	-0.700	34.852	1447.7	28.020	28.381	-0.704	28.021	7.820	0.039
150.0	-0.728	34.860	1448.0	28.028	28.375	-0.732	28.029	7.002	0.041
175.0	-0.752	34.865	1448.3	28.033	28.370	-0.757	28.034	6.469	0.043
200.0	-0.773	34.867	1448.6	28.036	28.365	-0.779	28.037	6.159	0.044
250.0	-0.827	34.870	1449.2	28.041	28.345	-0.834	28.042	5.547	0.047
300.1	-0.843	34.874	1450.0	28.044	28.357	-0.852	28.045	5.083	0.050
350.0	-0.913	34.872	1450.5	28.046	28.318	-0.924	28.047	4.750	0.053
400.0	-0.979	34.870	1451.0	28.047	28.284	-0.991	28.048	4.448	0.055
450.0	-1.018	34.870	1451.7	28.049	28.274	-1.032	28.050	4.062	0.057
500.0	-1.047	34.870	1452.3	28.049	28.271	-1.063	28.051	3.809	0.059
600.0	-1.093	34.869	1453.8	28.051	28.277	-1.112	28.052	3.321	0.062
700.0	-1.115	34.869	1455.4	28.051	28.302	-1.138	28.053	2.897	0.066
800.0	-1.118	34.870	1457.0	28.052	28.346	-1.144	28.054	2.487	0.068
900.2	-1.120	34.871	1458.7	28.053	28.389	-1.151	28.055	2.069	0.071
998.0	-1.135	34.871	1460.3	28.053	28.418	-1.170	28.055	1.717	0.073

STATION 28 75-16.4N 1-13.1W 9/15/89 23.1 HRS GMT, 998 RECORDS
WIND KNOTS/DIR 14/ 40, AIR TEMP. 3.9° C, DEW PT 3.9° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
1.0	3.709	34.370	1464.6	27.314	31.764	3.709	27.315	74.947	0.001
5.0	3.698	34.372	1464.6	27.317	31.757	3.698	27.317	74.776	0.004
10.0	3.694	34.372	1464.7	27.317	31.756	3.693	27.318	74.739	0.007
15.0	3.696	34.374	1464.8	27.318	31.762	3.695	27.319	74.694	0.011
20.1	3.702	34.381	1464.9	27.323	31.775	3.701	27.324	74.244	0.015
25.0	3.714	34.395	1465.0	27.334	31.800	3.713	27.334	73.320	0.019
30.0	3.906	34.576	1466.2	27.459	32.123	3.904	27.459	61.549	0.022
40.3	3.593	34.553	1465.0	27.471	31.832	3.591	27.472	60.404	0.028
50.3	-0.112	34.736	1449.0	27.899	28.762	-0.113	27.899	19.574	0.031
75.0	-0.994	34.785	1445.4	27.978	28.060	-0.996	27.979	11.824	0.035
100.0	-1.011	34.820	1445.8	28.007	28.083	-1.013	28.008	9.008	0.038
125.0	-0.981	34.841	1446.4	28.023	28.134	-0.985	28.024	7.445	0.040
150.0	-0.885	34.856	1447.3	28.032	28.239	-0.889	28.032	6.633	0.041
175.0	-0.928	34.857	1447.5	28.034	28.215	-0.933	28.035	6.275	0.043
200.0	-0.837	34.868	1448.4	28.039	28.311	-0.843	28.040	5.783	0.044
250.0	-0.924	34.868	1448.8	28.043	28.260	-0.932	28.044	5.248	0.047
300.1	-0.980	34.868	1449.3	28.045	28.236	-0.989	28.046	4.893	0.050
350.0	-1.022	34.869	1450.0	28.048	28.224	-1.033	28.049	4.451	0.052
400.1	-1.054	34.868	1450.7	28.049	28.219	-1.066	28.049	4.185	0.054
450.0	-1.095	34.868	1451.3	28.050	28.207	-1.109	28.051	3.831	0.056
500.0	-1.059	34.873	1452.3	28.052	28.264	-1.074	28.053	3.525	0.058
600.0	-1.096	34.870	1453.8	28.052	28.275	-1.115	28.053	3.209	0.061
700.0	-1.105	34.873	1455.4	28.054	28.314	-1.128	28.056	2.633	0.064
800.0	-1.139	34.872	1456.9	28.054	28.329	-1.165	28.056	2.256	0.067
900.1	-1.146	34.871	1458.6	28.054	28.366	-1.177	28.056	1.949	0.069
998.0	-1.144	34.870	1460.2	28.053	28.410	-1.179	28.055	1.701	0.070

STATION 29 74-59.2N 0-42.7W 9/16/89 8.1 HRS GMT, 965 RECORDS
WIND KNOTS/DIR 20/ 10, AIR TEMP. 3.9° C, DEW PT 3.7° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
35.0	2.378	34.471	1459.6	27.517	30.696	2.376	27.518	55.913	0.000
40.0	0.772	34.614	1452.7	27.750	29.421	0.770	27.750	33.777	0.002
50.0	-0.467	34.695	1447.3	27.883	28.429	-0.469	27.884	20.987	0.005
75.1	-0.812	34.778	1446.3	27.965	28.209	-0.814	27.966	13.128	0.009
100.0	-0.508	34.845	1448.2	28.006	28.528	-0.511	28.007	9.278	0.012
125.0	-0.384	34.872	1449.2	28.022	28.666	-0.388	28.023	7.772	0.014
150.0	-0.371	34.879	1449.7	28.027	28.693	-0.376	28.028	7.289	0.016
175.0	-0.476	34.878	1449.6	28.031	28.614	-0.482	28.032	6.827	0.017
200.1	-0.527	34.882	1449.8	28.037	28.585	-0.534	28.038	6.212	0.019
250.0	-0.619	34.884	1450.2	28.043	28.532	-0.627	28.044	5.478	0.022
300.0	-0.678	34.884	1450.8	28.045	28.504	-0.688	28.046	5.127	0.025
350.0	-0.711	34.886	1451.4	28.048	28.500	-0.723	28.049	4.701	0.027
400.1	-0.813	34.880	1451.8	28.048	28.432	-0.826	28.049	4.525	0.029
450.0	-0.840	34.883	1452.5	28.051	28.434	-0.855	28.052	4.048	0.032
500.0	-0.911	34.881	1453.0	28.053	28.394	-0.928	28.054	3.692	0.034
600.0	-0.973	34.879	1454.4	28.054	28.386	-0.993	28.055	3.215	0.037
700.0	-1.022	34.879	1455.8	28.056	28.388	-1.046	28.057	2.687	0.040
800.0	-1.069	34.877	1457.3	28.056	28.392	-1.096	28.058	2.227	0.042
900.0	-1.099	34.876	1458.8	28.056	28.410	-1.130	28.058	1.833	0.044
998.0	-1.098	34.877	1460.4	28.057	28.454	-1.133	28.059	1.476	0.046

STATION 30 74-44.6N 0-25.2W 9/16/89 12.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 15/ 40, AIR TEMP. 4.0° C, DEW PT 4.0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.379	34.310	1463.1	27.299	31.423	3.379	27.299	76.398	0.000
5.0	3.378	34.311	1463.2	27.299	31.424	3.377	27.300	76.420	0.004
10.0	3.374	34.314	1463.2	27.302	31.427	3.374	27.302	76.188	0.008
15.0	3.399	34.337	1463.5	27.318	31.470	3.398	27.319	74.662	0.011
20.0	3.563	34.561	1464.5	27.481	31.803	3.562	27.481	59.337	0.015
25.0	3.470	34.568	1464.2	27.496	31.728	3.468	27.496	57.947	0.018
30.0	2.560	34.603	1460.5	27.607	30.959	2.558	27.608	47.390	0.020
40.1	0.943	34.637	1453.5	27.757	29.587	0.942	27.758	33.092	0.024
50.3	-0.215	34.688	1448.5	27.865	28.638	-0.216	27.865	22.749	0.027
75.0	-0.656	34.754	1447.0	27.939	28.323	-0.659	27.940	15.629	0.032
100.0	-0.469	34.842	1448.4	28.002	28.559	-0.472	28.003	9.656	0.035
125.1	-0.472	34.862	1448.8	28.019	28.583	-0.476	28.019	8.074	0.037
150.1	-0.490	34.872	1449.1	28.027	28.586	-0.495	28.028	7.228	0.039
175.0	-0.562	34.871	1449.2	28.030	28.536	-0.567	28.030	6.913	0.040
200.1	-0.615	34.874	1449.4	28.034	28.504	-0.622	28.035	6.394	0.042
250.1	-0.615	34.878	1450.2	28.038	28.531	-0.623	28.039	5.956	0.045
300.0	-0.723	34.877	1450.5	28.042	28.461	-0.733	28.043	5.422	0.048
350.0	-0.716	34.882	1451.4	28.046	28.493	-0.728	28.047	4.962	0.051
400.0	-0.728	34.883	1452.2	28.047	28.507	-0.741	28.048	4.715	0.053
450.1	-0.765	34.883	1452.8	28.048	28.497	-0.780	28.049	4.453	0.055
500.0	-0.811	34.883	1453.5	28.050	28.481	-0.827	28.052	4.062	0.057
600.1	-0.997	34.876	1454.3	28.052	28.363	-1.017	28.054	3.330	0.061
700.1	-1.053	34.876	1455.7	28.054	28.360	-1.076	28.056	2.754	0.064
800.0	-1.081	34.875	1457.2	28.055	28.381	-1.108	28.057	2.297	0.067
900.0	-1.086	34.876	1458.8	28.056	28.421	-1.117	28.057	1.956	0.069
998.0	-1.085	34.877	1460.5	28.057	28.465	-1.120	28.058	1.561	0.071

STATION 31 74-25.4N 1-42.2W 9/16/89 16.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 15/ 25, AIR TEMP. 4.0° C, DEW PT 3.8° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPP m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁶	DYNDTH DYN M
1.0	4.025	33.906	1465.3	26.913	31.652	4.025	26.914	112.981	0.001
5.0	4.027	33.906	1465.4	26.912	31.655	4.027	26.913	113.082	0.006
10.0	4.023	33.909	1465.4	26.916	31.656	4.022	26.916	112.819	0.011
15.0	3.870	34.276	1465.4	27.223	31.833	3.869	27.224	83.713	0.016
20.0	3.684	34.392	1464.8	27.334	31.768	3.682	27.335	73.240	0.020
25.0	3.590	34.419	1464.5	27.365	31.711	3.588	27.366	70.320	0.024
30.0	3.118	34.514	1462.7	27.486	31.376	3.117	27.486	58.924	0.027
40.0	0.566	34.689	1451.9	27.823	29.302	0.564	27.823	26.838	0.032
50.1	-0.296	34.722	1448.2	27.897	28.594	-0.298	27.897	19.719	0.034
75.0	-0.867	34.799	1446.0	27.985	28.177	-0.870	27.985	11.276	0.038
100.0	-0.670	34.845	1447.4	28.013	28.389	-0.674	28.014	8.551	0.040
125.0	-0.668	34.856	1447.9	28.022	28.412	-0.672	28.023	7.646	0.042
150.0	-0.689	34.867	1448.2	28.032	28.413	-0.694	28.033	6.671	0.044
175.1	-0.741	34.866	1448.4	28.034	28.380	-0.747	28.035	6.408	0.046
200.1	-0.699	34.874	1449.0	28.039	28.433	-0.706	28.039	5.934	0.047
250.1	-0.734	34.879	1449.7	28.044	28.430	-0.742	28.044	5.338	0.050
300.1	-0.789	34.878	1450.2	28.046	28.405	-0.799	28.047	4.987	0.052
350.0	-0.842	34.878	1450.8	28.048	28.383	-0.853	28.049	4.628	0.055
400.0	-0.923	34.875	1451.3	28.049	28.335	-0.936	28.049	4.344	0.057
450.0	-0.935	34.877	1452.0	28.051	28.349	-0.949	28.052	3.953	0.059
500.0	-1.006	34.874	1452.5	28.051	28.309	-1.021	28.052	3.710	0.061
600.4	-1.006	34.878	1454.2	28.055	28.358	-1.025	28.056	3.101	0.064
700.1	-1.095	34.874	1455.5	28.055	28.323	-1.118	28.056	2.638	0.067
800.1	-1.121	34.873	1457.0	28.054	28.345	-1.147	28.056	2.279	0.070
900.0	-1.132	34.874	1458.6	28.056	28.381	-1.163	28.058	1.780	0.072
998.0	-1.131	34.877	1460.3	28.058	28.426	-1.166	28.060	1.271	0.073

STATION 32 74- 8.4N 3- 1.1W 9/16/89 20.1 HRS GMT, 998 RECORDS
WIND KNOTS/DIR 19/ 10, AIR TEMP. 3.9° C, DEW PT 3.9° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.955	33.523	1464.5	26.616	31.268	3.955	26.616	141.199	0.000
5.9	3.954	33.522	1464.6	26.615	31.269	3.954	26.616	141.292	0.008
10.1	3.952	33.523	1464.6	26.615	31.269	3.952	26.616	141.285	0.014
15.0	3.794	33.703	1464.3	26.775	31.286	3.793	26.776	126.182	0.021
20.1	4.057	34.001	1465.9	26.985	31.768	4.056	26.986	106.309	0.027
25.0	3.803	34.138	1465.1	27.120	31.663	3.802	27.121	93.560	0.032
30.0	1.160	34.658	1454.4	27.759	29.785	1.158	27.760	32.874	0.035
40.0	0.045	34.730	1449.6	27.886	28.886	0.043	27.886	20.816	0.037
50.0	-0.231	34.778	1448.6	27.939	28.691	-0.232	27.939	15.786	0.039
75.0	-0.164	34.860	1449.4	28.001	28.821	-0.166	28.002	9.841	0.042
100.0	-0.108	34.877	1450.1	28.013	28.894	-0.112	28.013	8.774	0.045
125.0	-0.230	34.876	1449.9	28.018	28.800	-0.234	28.018	8.254	0.047
150.0	-0.464	34.868	1449.3	28.023	28.606	-0.469	28.024	7.636	0.049
175.0	-0.541	34.876	1449.3	28.033	28.558	-0.547	28.034	6.622	0.050
200.0	-0.516	34.886	1449.9	28.040	28.598	-0.523	28.041	5.932	0.052
250.1	-0.721	34.876	1449.7	28.041	28.439	-0.729	28.042	5.609	0.055
300.0	-0.724	34.881	1450.5	28.045	28.462	-0.734	28.046	5.144	0.058
350.1	-0.803	34.879	1451.0	28.047	28.417	-0.814	28.048	4.727	0.060
400.1	-0.882	34.876	1451.5	28.048	28.370	-0.895	28.049	4.471	0.062
450.0	-0.947	34.874	1452.0	28.049	28.337	-0.961	28.050	4.134	0.064
500.1	-1.009	34.872	1452.5	28.050	28.305	-1.024	28.051	3.849	0.066
600.1	-1.050	34.874	1454.0	28.053	28.317	-1.069	28.054	3.214	0.070
700.1	-1.066	34.876	1455.6	28.055	28.350	-1.089	28.057	2.616	0.073
800.0	-1.089	34.876	1457.2	28.056	28.375	-1.116	28.058	2.188	0.075
900.0	-1.072	34.880	1458.9	28.059	28.436	-1.104	28.061	1.679	0.077
997.0	-1.074	34.881	1460.5	28.060	28.477	-1.109	28.061	1.317	0.079

STATION 33 73-47.4N 4- 6.3W 9/17/89 0.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 20/ 0, AIR TEMP. 4.0° C, DEW PT 3.9° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPP m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
1.0	3.519	32.239	1460.9	25.635	29.820	3.519	25.635	234.331	0.002
5.0	3.517	32.239	1461.0	25.636	29.821	3.517	25.636	234.279	0.012
10.1	3.635	32.587	1462.0	25.902	30.213	3.635	25.902	209.012	0.023
15.0	3.938	33.516	1464.6	26.612	31.253	3.937	26.612	141.681	0.032
20.0	3.816	33.739	1464.5	26.801	31.338	3.814	26.802	123.725	0.038
25.1	2.844	34.265	1461.1	27.312	30.930	2.842	27.313	75.324	0.043
30.0	2.012	34.624	1458.1	27.669	30.497	2.010	27.670	41.482	0.046
40.0	0.390	34.705	1451.1	27.846	29.163	0.388	27.846	24.633	0.050
50.0	-0.144	34.750	1448.9	27.912	28.744	-0.146	27.912	18.321	0.052
75.1	-0.231	34.835	1449.0	27.985	28.746	-0.233	27.985	11.390	0.055
100.1	-0.181	34.856	1449.7	27.999	28.816	-0.184	28.000	10.015	0.058
125.0	-0.466	34.865	1448.8	28.020	28.590	-0.471	28.021	7.900	0.060
150.0	-0.437	34.875	1449.4	28.027	28.634	-0.442	28.028	7.262	0.062
175.0	-0.498	34.877	1449.5	28.032	28.596	-0.503	28.033	6.735	0.064
200.1	-0.571	34.879	1449.6	28.036	28.546	-0.577	28.037	6.244	0.065
250.0	-0.707	34.877	1449.8	28.041	28.452	-0.715	28.042	5.609	0.068
300.0	-0.732	34.868	1450.5	28.035	28.447	-0.741	28.036	6.062	0.071
350.0	-0.803	34.868	1451.0	28.038	28.409	-0.814	28.039	5.565	0.074
400.0	-0.863	34.868	1451.5	28.040	28.380	-0.876	28.041	5.189	0.077
450.0	-0.942	34.865	1452.0	28.041	28.334	-0.957	28.042	4.884	0.079
500.0	-0.987	34.864	1452.6	28.042	28.317	-1.003	28.043	4.586	0.082
600.0	-1.066	34.862	1453.9	28.044	28.294	-1.085	28.045	3.988	0.086
700.0	-1.090	34.865	1455.5	28.047	28.320	-1.113	28.048	3.367	0.089
800.0	-1.106	34.868	1457.1	28.050	28.354	-1.133	28.051	2.746	0.092
900.0	-1.085	34.875	1458.8	28.055	28.421	-1.116	28.057	1.982	0.095
998.0	-1.081	34.878	1460.5	28.057	28.469	-1.116	28.059	1.524	0.097

STATION 34 73-26.6N 5- 9.5W 9/17/89 4.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 21/ 30, AIR TEMP. 3.7° C, DEW PT 3.5° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	2.900	31.832	1457.7	25.365	28.971	2.900	25.365	259.996	0.000
5.0	2.887	31.832	1457.7	25.366	28.963	2.887	25.366	259.965	0.013
10.0	2.913	31.949	1458.0	25.457	29.082	2.912	25.458	251.278	0.026
15.0	2.336	32.994	1457.0	26.339	29.460	2.335	26.339	167.526	0.038
20.0	1.248	34.109	1453.8	27.312	29.429	1.248	27.313	75.192	0.042
25.0	1.308	34.548	1454.8	27.660	29.825	1.307	27.661	42.231	0.045
30.0	0.522	34.610	1451.4	27.761	29.199	0.521	27.762	32.617	0.047
40.0	0.505	34.724	1451.7	27.855	29.277	0.503	27.855	23.793	0.050
50.1	0.589	34.774	1452.3	27.889	29.392	0.587	27.890	20.545	0.052
75.0	0.473	34.837	1452.3	27.947	29.351	0.470	27.948	15.093	0.056
100.0	0.713	34.896	1453.8	27.980	29.615	0.709	27.981	12.080	0.059
125.0	0.644	34.909	1454.0	27.995	29.577	0.639	27.996	10.674	0.062
150.0	0.571	34.916	1454.0	28.005	29.531	0.565	28.006	9.774	0.065
175.0	0.459	34.914	1453.9	28.010	29.444	0.452	28.011	9.226	0.067
200.1	0.284	34.907	1453.6	28.015	29.300	0.276	28.016	8.701	0.069
250.1	0.011	34.899	1453.1	28.023	29.081	0.001	28.024	7.771	0.073
300.0	-0.184	34.895	1453.1	28.030	28.933	-0.195	28.031	6.943	0.077
350.0	-0.354	34.892	1453.1	28.037	28.810	-0.367	28.038	6.114	0.080
400.0	-0.396	34.894	1453.7	28.040	28.798	-0.410	28.042	5.704	0.083
450.1	-0.495	34.893	1454.1	28.044	28.735	-0.511	28.045	5.178	0.086
500.0	-0.540	34.893	1454.7	28.047	28.720	-0.557	28.048	4.796	0.088
600.0	-0.651	34.890	1455.9	28.049	28.668	-0.672	28.051	4.216	0.093
700.1	-0.739	34.889	1457.1	28.052	28.636	-0.764	28.053	3.607	0.097
800.0	-0.810	34.891	1458.5	28.057	28.621	-0.839	28.058	2.787	0.100
900.0	-0.896	34.888	1459.7	28.058	28.591	-0.928	28.060	2.219	0.103
998.0	-0.964	34.887	1461.1	28.060	28.575	-1.001	28.062	1.604	0.104

STATION 35 73- 5.3N 6-17.0W 9/17/89 8.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 13/ 25, AIR TEMP. 3.5° C, DEW PT 3.5° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.577	32.670	1461.7	25.973	30.229	3.577	25.973	202.209	0.000
5.1	3.580	32.666	1461.8	25.970	30.230	3.580	25.970	202.543	0.010
10.1	3.566	32.670	1461.8	25.975	30.225	3.566	25.975	202.116	0.020
15.1	3.564	32.670	1461.9	25.975	30.225	3.563	25.975	202.126	0.030
20.0	3.028	33.180	1460.4	26.430	30.198	3.027	26.430	158.924	0.040
25.1	0.892	34.491	1452.8	27.642	29.423	0.891	27.643	43.900	0.044
30.0	0.750	34.557	1452.4	27.705	29.354	0.749	27.705	37.996	0.046
40.1	0.543	34.637	1451.7	27.782	29.243	0.542	27.783	30.678	0.049
50.1	0.421	34.698	1451.4	27.838	29.189	0.419	27.839	25.377	0.052
75.0	0.744	34.823	1453.5	27.920	29.575	0.741	27.920	17.748	0.057
100.0	0.716	34.868	1453.8	27.957	29.596	0.712	27.958	14.213	0.061
125.0	0.603	34.885	1453.7	27.978	29.523	0.598	27.979	12.284	0.064
150.0	0.592	34.900	1454.1	27.991	29.536	0.586	27.992	11.109	0.067
175.0	0.588	34.911	1454.5	28.000	29.553	0.580	28.001	10.260	0.070
200.0	0.456	34.910	1454.3	28.007	29.449	0.447	28.008	9.554	0.072
250.0	0.215	34.905	1454.1	28.017	29.261	0.205	28.018	8.498	0.077
300.1	-0.045	34.895	1453.7	28.023	29.053	-0.056	28.025	7.713	0.081
350.1	-0.337	34.884	1453.2	28.029	28.818	-0.349	28.030	6.857	0.084
400.0	-0.400	34.889	1453.7	28.036	28.791	-0.414	28.038	6.075	0.088
450.0	-0.533	34.886	1453.9	28.041	28.698	-0.548	28.042	5.457	0.091
500.0	-0.534	34.891	1454.8	28.045	28.723	-0.552	28.046	4.975	0.093
600.0	-0.605	34.890	1456.1	28.047	28.707	-0.627	28.049	4.473	0.098
700.1	-0.731	34.886	1457.2	28.050	28.641	-0.756	28.051	3.811	0.102
800.1	-0.823	34.885	1458.4	28.053	28.606	-0.852	28.054	3.110	0.106
900.0	-0.860	34.889	1459.9	28.057	28.621	-0.893	28.059	2.365	0.108
998.0	-0.882	34.893	1461.5	28.061	28.649	-0.920	28.063	1.703	0.110

STATION 36 72-41.1N 7-25.4W 9/17/89 12.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 17/ 20, AIR TEMP. 3.7° C, DEW PT 3.7° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.169	32.419	1459.6	25.810	29.678	3.169	25.811	217.665	0.000
5.0	3.171	32.419	1459.7	25.810	29.682	3.170	25.811	217.681	0.011
10.0	3.168	32.418	1459.8	25.809	29.681	3.167	25.810	217.808	0.022
15.0	3.167	32.418	1459.9	25.810	29.683	3.166	25.810	217.769	0.033
20.0	3.153	32.418	1459.9	25.811	29.673	3.152	25.812	217.679	0.044
25.0	0.682	33.797	1450.9	27.098	28.710	0.681	27.098	95.487	0.052
30.0	0.473	34.233	1450.7	27.461	28.870	0.472	27.462	61.051	0.056
40.0	0.346	34.527	1450.7	27.705	28.990	0.344	27.706	37.953	0.060
50.0	0.740	34.670	1452.8	27.797	29.442	0.738	27.797	29.352	0.064
75.0	0.968	34.811	1454.4	27.895	29.758	0.964	27.896	20.103	0.070
100.0	0.809	34.846	1454.2	27.934	29.660	0.805	27.935	16.459	0.074
125.1	0.833	34.875	1454.8	27.956	29.714	0.828	27.956	14.468	0.078
150.0	0.758	34.884	1454.8	27.968	29.668	0.752	27.968	13.358	0.082
175.0	0.682	34.895	1454.9	27.981	29.622	0.674	27.982	12.075	0.085
200.0	0.621	34.900	1455.1	27.989	29.584	0.612	27.990	11.377	0.088
250.1	0.525	34.910	1455.5	28.003	29.532	0.514	28.004	10.028	0.093
300.0	0.325	34.907	1455.4	28.012	29.381	0.313	28.014	9.060	0.098
350.0	0.077	34.900	1455.1	28.021	29.185	0.063	28.022	8.025	0.102
400.0	-0.083	34.897	1455.2	28.027	29.067	-0.098	28.028	7.327	0.106
450.0	-0.234	34.894	1455.3	28.032	28.959	-0.251	28.034	6.590	0.109
500.0	-0.338	34.893	1455.7	28.037	28.892	-0.357	28.039	5.964	0.112
600.0	-0.501	34.891	1456.6	28.043	28.796	-0.523	28.045	5.018	0.118
739.0	-0.595	34.894	1458.5	28.050	28.780	-0.623	28.052	3.989	0.124
800.1	-0.670	34.889	1459.1	28.049	28.739	-0.700	28.051	3.825	0.126
900.1	-0.750	34.895	1460.4	28.057	28.720	-0.784	28.059	2.661	0.130
998.0	-0.774	34.900	1462.0	28.062	28.746	-0.812	28.064	1.905	0.132

STATION 37 72-17.0N 8-30.0W 9/17/89 17.1 HRS GMT, 998 RECORDS
WIND KNOTS/DIR 26/ 0, AIR TEMP. 3.8° C, DEW PT 3.6° C

PRESS DBAR	TEMP °C	SALITY PSU	SNDS PD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
2.0	2.963	32.239	1458.5	25.684	29.359	2.962	25.685	229.646	0.005
5.0	2.964	32.238	1458.6	25.684	29.361	2.964	25.684	229.722	0.011
10.0	2.965	32.239	1458.7	25.684	29.364	2.964	25.684	229.704	0.023
15.0	2.975	32.252	1458.8	25.694	29.385	2.974	25.694	228.815	0.035
20.1	1.594	33.568	1454.6	26.854	29.297	1.593	26.854	118.664	0.044
25.0	1.298	33.781	1453.7	27.045	29.216	1.297	27.046	100.505	0.049
30.0	-0.194	34.255	1447.7	27.514	28.322	-0.195	27.515	55.954	0.053
40.1	-0.372	34.464	1447.3	27.691	28.332	-0.373	27.692	39.160	0.057
50.0	-0.143	34.589	1448.7	27.782	28.625	-0.144	27.782	30.643	0.061
75.0	0.217	34.730	1450.9	27.876	29.050	0.214	27.877	21.749	0.067
100.0	0.678	34.822	1453.6	27.923	29.529	0.674	27.924	17.449	0.072
125.0	0.610	34.852	1453.7	27.951	29.503	0.604	27.952	14.847	0.076
150.0	0.688	34.881	1454.5	27.969	29.605	0.681	27.970	13.154	0.079
175.0	0.602	34.890	1454.6	27.982	29.549	0.594	27.983	11.940	0.082
200.0	0.589	34.900	1454.9	27.991	29.557	0.581	27.992	11.160	0.085
250.0	0.459	34.906	1455.2	28.004	29.472	0.448	28.005	9.908	0.090
300.1	0.252	34.903	1455.1	28.014	29.315	0.240	28.015	8.894	0.095
350.1	0.071	34.898	1455.1	28.019	29.178	0.057	28.021	8.197	0.099
400.0	-0.097	34.894	1455.1	28.025	29.053	-0.113	28.027	7.450	0.103
450.1	-0.201	34.892	1455.5	28.029	28.986	-0.218	28.031	6.914	0.107
500.3	-0.319	34.890	1455.7	28.033	28.906	-0.338	28.035	6.353	0.110
600.0	-0.490	34.889	1456.6	28.041	28.804	-0.512	28.042	5.289	0.116
700.0	-0.617	34.887	1457.7	28.045	28.739	-0.643	28.047	4.463	0.121
800.0	-0.728	34.885	1458.8	28.049	28.687	-0.758	28.050	3.723	0.125
900.0	-0.790	34.887	1460.2	28.053	28.681	-0.823	28.055	2.934	0.128
998.0	-0.787	34.894	1461.9	28.059	28.731	-0.825	28.061	2.215	0.131

STATION 38 71-52.7N 9-39.5W 9/17/89 22.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 20/ 40, AIR TEMP. 3.9° C, DEW PT 3.7° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.118	32.749	1459.8	26.078	29.908	3.118	26.078	192.277	0.000
5.0	3.127	32.747	1460.0	26.075	29.916	3.126	26.076	192.531	0.010
10.1	3.107	32.746	1460.0	26.077	29.901	3.106	26.077	192.409	0.019
15.1	3.108	32.747	1460.1	26.077	29.905	3.107	26.078	192.356	0.029
20.0	2.990	32.780	1459.7	26.113	29.835	2.988	26.114	188.948	0.038
25.0	0.263	33.905	1449.2	27.208	28.440	0.262	27.208	85.024	0.045
30.1	-0.587	34.230	1445.8	27.512	27.973	-0.587	27.512	56.156	0.049
40.0	-0.589	34.429	1446.2	27.673	28.123	-0.591	27.674	40.843	0.054
50.0	-0.408	34.531	1447.4	27.748	28.356	-0.410	27.748	33.824	0.058
75.1	-0.398	34.667	1448.0	27.857	28.477	-0.401	27.857	23.461	0.065
100.0	0.414	34.795	1452.3	27.917	29.279	0.410	27.918	17.952	0.070
125.0	0.444	34.839	1453.0	27.951	29.351	0.439	27.951	14.798	0.074
150.0	0.460	34.864	1453.5	27.970	29.395	0.454	27.971	13.014	0.077
175.0	0.402	34.873	1453.6	27.981	29.364	0.395	27.982	11.987	0.080
200.0	0.428	34.888	1454.2	27.991	29.409	0.420	27.992	11.052	0.083
250.0	0.436	34.902	1455.1	28.002	29.449	0.426	28.003	10.088	0.088
300.1	0.328	34.905	1455.4	28.011	29.381	0.315	28.012	9.241	0.093
350.0	0.182	34.904	1455.6	28.019	29.278	0.168	28.020	8.382	0.098
400.0	0.015	34.902	1455.6	28.026	29.155	-0.001	28.027	7.527	0.102
450.0	-0.135	34.897	1455.8	28.030	29.046	-0.153	28.031	6.942	0.105
500.0	-0.239	34.897	1456.1	28.035	28.979	-0.258	28.036	6.324	0.108
600.1	-0.399	34.895	1457.0	28.042	28.886	-0.422	28.043	5.346	0.114
700.0	-0.511	34.895	1458.2	28.047	28.835	-0.538	28.048	4.519	0.119
800.0	-0.581	34.898	1459.5	28.052	28.822	-0.612	28.054	3.707	0.123
900.2	-0.640	34.901	1460.9	28.058	28.818	-0.675	28.060	2.890	0.127
997.0	-0.681	34.904	1462.4	28.062	28.828	-0.720	28.064	2.213	0.129

STATION 39 71-27.0N 10-47.1W 9/18/89 2.1 HRS GMT, 998 RECORDS
WIND KNOTS/DIR 20/ 10, AIR TEMP. 3.7° C, DEW PT 3.7° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPP m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
2.0	3.075	32.913	1459.9	26.212	30.008	3.074	26.212	179.513	0.004
5.0	3.070	32.911	1459.9	26.211	30.004	3.070	26.211	179.631	0.009
10.0	3.076	32.912	1460.1	26.211	30.012	3.075	26.212	179.626	0.018
15.0	3.117	33.472	1461.1	26.654	30.511	3.116	26.655	137.594	0.027
20.4	2.857	34.320	1461.2	27.354	30.984	2.855	27.355	71.278	0.032
25.0	2.847	34.353	1461.3	27.382	31.005	2.846	27.382	68.710	0.035
30.0	2.709	34.389	1460.8	27.423	30.916	2.708	27.423	64.854	0.039
40.0	1.477	34.488	1455.7	27.601	29.931	1.475	27.601	47.940	0.045
50.0	0.108	34.480	1449.7	27.680	28.756	0.107	27.681	40.284	0.049
75.1	-0.287	34.660	1448.5	27.846	28.567	-0.290	27.847	24.473	0.057
100.1	0.435	34.795	1452.4	27.916	29.298	0.431	27.917	18.049	0.062
125.0	0.439	34.822	1452.9	27.937	29.334	0.434	27.938	16.050	0.066
150.0	0.564	34.863	1453.9	27.963	29.484	0.558	27.964	13.722	0.070
175.0	0.700	34.880	1455.0	27.968	29.626	0.692	27.969	13.356	0.074
200.1	0.746	34.895	1455.6	27.977	29.688	0.737	27.978	12.558	0.077
250.1	0.643	34.905	1456.0	27.992	29.630	0.632	27.993	11.188	0.083
300.0	0.567	34.913	1456.5	28.003	29.594	0.554	28.004	10.135	0.088
350.0	0.416	34.913	1456.6	28.012	29.486	0.401	28.013	9.214	0.093
400.0	0.291	34.910	1456.9	28.017	29.399	0.274	28.019	8.640	0.097
450.0	0.148	34.907	1457.1	28.022	29.296	0.130	28.024	8.018	0.101
500.1	0.079	34.906	1457.6	28.026	29.258	0.058	28.027	7.630	0.105
600.1	-0.167	34.900	1458.1	28.034	29.088	-0.191	28.036	6.429	0.112
700.0	-0.332	34.899	1459.0	28.041	28.991	-0.359	28.043	5.366	0.118
800.0	-0.450	34.903	1460.2	28.050	28.938	-0.481	28.052	4.168	0.123
900.1	-0.523	34.905	1461.5	28.055	28.921	-0.559	28.057	3.397	0.127
998.0	-0.593	34.907	1462.8	28.061	28.906	-0.633	28.063	2.568	0.130

STATION 40 71-21.1N 9- 0.8W 9/18/89 8.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 30/ 10, AIR TEMP. 3.9° C, DEW PT 3.7° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	3.457	33.615	1462.5	26.737	30.914	3.457	26.737	129.678	0.000
5.0	3.459	33.622	1462.6	26.742	30.924	3.458	26.743	129.192	0.007
10.0	3.453	33.637	1462.7	26.755	30.934	3.452	26.755	128.063	0.013
15.0	3.249	33.742	1462.0	26.858	30.848	3.248	26.858	118.300	0.019
20.0	0.155	34.235	1449.1	27.480	28.597	0.155	27.480	59.247	0.024
25.0	-0.356	34.334	1446.9	27.585	28.242	-0.357	27.586	49.218	0.027
30.0	-0.603	34.380	1445.9	27.634	28.071	-0.604	27.635	44.541	0.029
40.0	-0.380	34.496	1447.3	27.718	28.350	-0.382	27.719	36.612	0.033
50.0	-0.333	34.561	1447.8	27.768	28.442	-0.334	27.768	31.914	0.036
75.0	0.043	34.702	1450.1	27.863	28.880	0.040	27.864	22.947	0.043
100.0	0.846	34.828	1454.3	27.917	29.678	0.842	27.918	18.090	0.048
125.0	0.777	34.849	1454.5	27.938	29.645	0.772	27.939	16.124	0.052
150.0	0.693	34.869	1454.5	27.959	29.600	0.686	27.960	14.110	0.056
175.0	0.559	34.875	1454.3	27.972	29.500	0.552	27.973	12.847	0.059
200.0	0.633	34.888	1455.1	27.978	29.586	0.625	27.979	12.356	0.063
250.0	0.609	34.909	1455.9	27.997	29.604	0.598	27.998	10.682	0.068
300.1	0.576	34.919	1456.5	28.007	29.606	0.563	28.009	9.747	0.073
350.0	0.387	34.915	1456.5	28.015	29.463	0.372	28.017	8.886	0.078
400.0	0.198	34.908	1456.5	28.021	29.317	0.181	28.022	8.200	0.082
450.1	0.021	34.903	1456.5	28.026	29.184	0.004	28.027	7.517	0.086
500.0	-0.100	34.902	1456.8	28.032	29.102	-0.120	28.034	6.741	0.090
600.0	-0.268	34.902	1457.7	28.041	29.003	-0.291	28.042	5.638	0.096
700.0	-0.420	34.900	1458.6	28.047	28.917	-0.447	28.049	4.698	0.101
800.0	-0.539	34.900	1459.7	28.052	28.859	-0.570	28.054	3.795	0.105
900.0	-0.609	34.904	1461.1	28.059	28.847	-0.644	28.061	2.848	0.109
998.0	-0.643	34.910	1462.6	28.065	28.865	-0.682	28.067	2.056	0.111

STATION 40 71-21.4N 9- 4.7W 9/18/89 11.0 HRS GMT, 627 RECORDS
WIND KNOTS/DIR 11/ 20, AIR TEMP. 3.9° C, DEW PT 4.0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁴	DYNDTH DYN M
998.0	-0.631	34.910	1462.6	28.064	28.875	-0.670	28.066	2.142	0.000
1000.0	-0.632	34.909	1462.7	28.064	28.875	-0.671	28.066	2.148	0.000
1200.0	-0.726	34.909	1465.6	28.068	28.881	-0.775	28.070	1.155	0.003
1400.0	-0.795	34.910	1468.6	28.072	28.908	-0.854	28.075	0.083	0.005
1600.0	-0.875	34.910	1471.6	28.075	28.925	-0.943	28.079	-1.002	0.004
1800.1	-0.944	34.907	1474.7	28.076	28.947	-1.023	28.079	-1.838	0.001
2000.0	-0.985	34.906	1477.9	28.076	28.993	-1.076	28.080	-2.597	-0.003
2200.0	-1.027	34.901	1481.1	28.074	29.034	-1.130	28.078	-3.115	-0.009
2249.0	-1.052	34.898	1481.9	28.073	29.031	-1.158	28.077	-3.302	-0.011

STATION 41 71-44.3N 7-48.9W 9/18/89 17.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 30/ 20, AIR TEMP. 4.0° C, DEW PT 3.8° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
1.0	3.324	33.290	1461.5	26.491	30.531	3.323	26.491	153.048	0.002
5.0	3.301	33.290	1461.5	26.493	30.514	3.301	26.494	152.849	0.008
10.0	3.290	33.291	1461.5	26.495	30.507	3.289	26.495	152.714	0.015
15.0	3.285	33.293	1461.6	26.497	30.506	3.284	26.497	152.583	0.023
20.0	3.243	33.268	1461.4	26.481	30.452	3.241	26.481	154.119	0.031
25.0	-0.206	34.121	1447.3	27.407	28.209	-0.207	27.407	66.151	0.035
30.0	-0.478	34.350	1446.5	27.604	28.154	-0.479	27.605	47.408	0.038
40.2	-0.292	34.504	1447.7	27.720	28.431	-0.293	27.721	36.411	0.042
50.1	-0.528	34.560	1446.9	27.776	28.277	-0.529	27.777	31.092	0.046
75.0	-0.413	34.652	1447.9	27.845	28.454	-0.415	27.846	24.515	0.052
100.7	-0.077	34.774	1450.1	27.927	28.843	-0.080	27.928	16.830	0.058
125.0	0.081	34.815	1451.3	27.952	29.021	0.077	27.953	14.556	0.061
150.0	0.281	34.853	1452.6	27.972	29.233	0.275	27.973	12.760	0.065
175.2	0.403	34.876	1453.6	27.983	29.367	0.396	27.984	11.772	0.068
200.1	0.415	34.886	1454.1	27.990	29.396	0.407	27.991	11.125	0.071
250.0	0.429	34.902	1455.0	28.003	29.444	0.419	28.004	10.028	0.076
300.1	0.258	34.900	1455.1	28.011	29.317	0.245	28.012	9.116	0.081
350.0	0.084	34.898	1455.1	28.019	29.189	0.071	28.020	8.262	0.085
400.1	-0.025	34.895	1455.4	28.023	29.116	-0.040	28.024	7.775	0.089
450.0	-0.128	34.895	1455.8	28.028	29.050	-0.145	28.029	7.165	0.093
500.0	-0.244	34.893	1456.1	28.032	28.972	-0.263	28.034	6.539	0.096
600.0	-0.402	34.892	1457.0	28.039	28.881	-0.424	28.041	5.573	0.102
700.1	-0.510	34.890	1458.2	28.043	28.832	-0.537	28.045	4.883	0.107
800.0	-0.583	34.891	1459.5	28.047	28.815	-0.613	28.049	4.218	0.112
900.1	-0.638	34.891	1460.9	28.049	28.812	-0.673	28.051	3.678	0.116
998.0	-0.689	34.890	1462.3	28.051	28.811	-0.728	28.053	3.228	0.119

STATION 42 72- 8.1N 6-38.5W 9/19/89 0.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 21/ 20, AIR TEMP. 3.6° C, DEW PT 3.6° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁶	DYNDTH DYN M
0.0	3.595	33.696	1463.2	26.789	31.102	3.595	26.789	124.763	0.000
5.0	3.616	33.688	1463.3	26.780	31.115	3.615	26.781	125.608	0.006
10.0	3.590	33.690	1463.3	26.784	31.096	3.589	26.785	125.270	0.013
15.0	3.609	33.724	1463.5	26.809	31.144	3.608	26.810	122.921	0.019
20.0	3.660	33.796	1463.9	26.862	31.250	3.659	26.863	117.953	0.025
25.0	3.487	34.003	1463.5	27.043	31.274	3.486	27.044	100.830	0.030
30.0	1.680	34.137	1456.0	27.304	29.824	1.679	27.305	75.993	0.035
40.1	-0.579	34.466	1446.3	27.702	28.159	-0.580	27.703	38.089	0.040
50.1	-0.486	34.542	1447.0	27.760	28.299	-0.488	27.760	32.636	0.043
75.0	0.464	34.765	1452.1	27.890	29.288	0.461	27.891	20.487	0.049
100.1	0.608	34.825	1453.3	27.930	29.470	0.604	27.930	16.808	0.054
125.0	0.481	34.856	1453.1	27.962	29.396	0.476	27.963	13.747	0.058
150.0	0.085	34.843	1451.7	27.975	29.057	0.079	27.976	12.396	0.061
175.1	0.428	34.883	1453.8	27.987	29.393	0.421	27.988	11.382	0.064
200.0	0.429	34.893	1454.2	27.995	29.413	0.420	27.996	10.698	0.067
250.0	0.362	34.902	1454.7	28.006	29.385	0.351	28.007	9.615	0.072
300.0	0.224	34.904	1454.9	28.016	29.290	0.212	28.017	8.672	0.077
350.0	0.113	34.899	1455.2	28.018	29.215	0.099	28.019	8.342	0.081
400.0	-0.079	34.892	1455.2	28.023	29.067	-0.094	28.024	7.716	0.085
450.1	-0.199	34.892	1455.5	28.029	28.987	-0.216	28.030	6.963	0.089
500.0	-0.273	34.893	1456.0	28.034	28.947	-0.292	28.035	6.391	0.092
600.0	-0.452	34.891	1456.8	28.041	28.838	-0.474	28.042	5.357	0.098
700.0	-0.556	34.889	1458.0	28.044	28.792	-0.582	28.045	4.731	0.103
800.0	-0.588	34.891	1459.5	28.047	28.811	-0.618	28.049	4.144	0.107
900.4	-0.653	34.890	1460.9	28.050	28.799	-0.688	28.052	3.612	0.111
998.0	-0.686	34.892	1462.4	28.052	28.815	-0.725	28.054	3.102	0.114

STATION 43 72-31.0N 5-26.1W 9/19/89 5.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 20/ 25, AIR TEMP. 3.6° C, DEW PT 3.6° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDS PD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
1.0	3.687	33.706	1463.6	26.787	31.190	3.687	26.788	124.896	0.001
5.0	3.659	33.706	1463.5	26.790	31.168	3.659	26.791	124.643	0.006
10.0	3.663	33.717	1463.7	26.799	31.183	3.663	26.799	123.875	0.012
15.0	3.705	33.814	1464.0	26.872	31.301	3.704	26.872	117.009	0.018
20.2	3.695	33.820	1464.1	26.878	31.301	3.694	26.878	116.465	0.025
25.0	2.405	34.053	1458.9	27.180	30.378	2.404	27.180	87.823	0.030
30.0	0.003	34.435	1448.8	27.650	28.624	0.002	27.650	43.159	0.033
40.0	0.012	34.613	1449.3	27.793	28.770	0.010	27.793	29.628	0.036
50.0	0.189	34.712	1450.4	27.863	29.001	0.187	27.864	22.984	0.039
75.1	0.666	34.829	1453.1	27.929	29.512	0.663	27.930	16.838	0.044
100.0	0.729	34.865	1453.9	27.954	29.605	0.725	27.955	14.555	0.048
125.0	0.629	34.881	1453.8	27.974	29.542	0.623	27.974	12.694	0.051
150.0	0.540	34.891	1453.9	27.987	29.484	0.533	27.987	11.480	0.054
175.1	0.523	34.903	1454.2	27.998	29.491	0.516	27.999	10.426	0.057
200.0	0.409	34.902	1454.1	28.004	29.404	0.401	28.005	9.829	0.059
250.0	0.136	34.901	1453.7	28.019	29.190	0.126	28.020	8.313	0.064
300.0	-0.097	34.895	1453.5	28.026	29.009	-0.108	28.027	7.442	0.068
350.0	-0.289	34.892	1453.4	28.033	28.864	-0.302	28.034	6.530	0.071
400.0	-0.407	34.889	1453.7	28.037	28.785	-0.421	28.038	5.988	0.074
450.1	-0.471	34.891	1454.2	28.042	28.754	-0.487	28.043	5.431	0.077
500.0	-0.558	34.890	1454.6	28.045	28.702	-0.576	28.046	4.932	0.080
600.1	-0.622	34.890	1456.0	28.048	28.693	-0.643	28.050	4.357	0.084
700.3	-0.762	34.883	1457.0	28.049	28.613	-0.787	28.050	3.852	0.089
800.0	-0.840	34.884	1458.3	28.053	28.591	-0.869	28.054	3.096	0.092
900.0	-0.886	34.883	1459.8	28.053	28.595	-0.919	28.055	2.665	0.095
998.0	-0.899	34.882	1461.4	28.054	28.627	-0.937	28.056	2.357	0.097

STATION 44 72-52.8N 3-57.3W 9/19/89 14.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 28/ 30, AIR TEMP. 3.8° C, DEW PT 3.6° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	4.011	33.892	1465.2	26.903	31.627	4.011	26.903	113.942	0.000
5.0	4.011	33.893	1465.3	26.904	31.630	4.011	26.904	113.909	0.006
10.1	4.012	33.892	1465.4	26.903	31.633	4.012	26.904	113.976	0.011
15.1	4.013	33.892	1465.5	26.903	31.636	4.012	26.904	114.019	0.017
20.0	4.007	33.893	1465.5	26.905	31.633	4.006	26.905	113.959	0.023
25.0	3.052	33.967	1461.6	27.055	30.868	3.051	27.056	99.641	0.028
30.0	0.572	34.516	1451.5	27.683	29.170	0.571	27.684	40.042	0.031
40.0	-0.345	34.645	1447.7	27.837	28.491	-0.346	27.837	25.420	0.035
50.0	-0.259	34.719	1448.3	27.893	28.624	-0.260	27.893	20.119	0.037
75.0	0.610	34.851	1452.9	27.950	29.480	0.606	27.951	14.814	0.041
100.1	0.166	34.851	1451.3	27.976	29.109	0.162	27.977	12.278	0.045
125.0	0.469	34.893	1453.1	27.993	29.413	0.464	27.994	10.818	0.047
150.0	0.371	34.897	1453.1	28.002	29.343	0.365	28.003	9.963	0.050
175.0	0.292	34.899	1453.2	28.008	29.289	0.285	28.009	9.362	0.052
200.0	0.215	34.900	1453.2	28.013	29.234	0.207	28.014	8.880	0.055
250.0	-0.052	34.891	1452.8	28.021	29.021	-0.062	28.022	7.964	0.059
300.0	-0.337	34.882	1452.3	28.028	28.793	-0.348	28.029	7.048	0.063
350.1	-0.469	34.881	1452.6	28.034	28.703	-0.481	28.035	6.339	0.066
400.0	-0.478	34.892	1453.4	28.042	28.725	-0.493	28.044	5.422	0.069
450.1	-0.604	34.883	1453.6	28.041	28.635	-0.619	28.042	5.310	0.072
500.0	-0.664	34.882	1454.1	28.043	28.606	-0.681	28.044	4.973	0.074
600.0	-0.743	34.882	1455.4	28.047	28.583	-0.764	28.048	4.301	0.079
700.0	-0.810	34.883	1456.8	28.050	28.571	-0.835	28.052	3.590	0.083
800.0	-0.847	34.885	1458.3	28.054	28.586	-0.875	28.055	2.964	0.086
900.0	-0.870	34.887	1459.9	28.056	28.612	-0.903	28.058	2.485	0.089
998.0	-0.910	34.884	1461.3	28.056	28.619	-0.947	28.058	2.148	0.091

STATION 45 73-20.0N 3- 1.4W 9/19/89 19.1 HRS GMT, 984 RECORDS
WIND KNOTS/DIR 35/ 35, AIR TEMP. 3.7° C, DEW PT 3.7° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
16.0	3.844	33.779	1464.6	26.830	31.394	3.843	26.831	120.950	0.019
20.1	3.318	34.000	1462.7	27.057	31.122	3.316	27.058	99.433	0.024
25.0	1.673	34.492	1456.3	27.590	30.097	1.672	27.590	48.966	0.027
30.0	0.882	34.633	1453.1	27.758	29.526	0.880	27.758	33.020	0.029
40.0	0.591	34.682	1452.0	27.816	29.318	0.589	27.816	27.510	0.032
50.0	0.542	34.773	1452.1	27.892	29.350	0.540	27.893	20.297	0.035
75.0	0.672	34.863	1453.2	27.956	29.542	0.669	27.957	14.303	0.039
100.0	0.731	34.892	1453.9	27.976	29.628	0.727	27.977	12.483	0.042
125.0	0.587	34.903	1453.7	27.994	29.524	0.582	27.995	10.757	0.045
150.0	0.574	34.914	1454.1	28.004	29.532	0.568	28.004	9.882	0.048
175.1	0.457	34.914	1453.9	28.010	29.442	0.450	28.011	9.219	0.050
200.0	0.293	34.909	1453.6	28.016	29.309	0.285	28.017	8.626	0.052
250.0	0.058	34.903	1453.3	28.025	29.125	0.049	28.026	7.689	0.056
300.1	-0.187	34.898	1453.0	28.033	28.933	-0.198	28.034	6.689	0.060
350.0	-0.320	34.898	1453.3	28.040	28.843	-0.332	28.041	5.876	0.063
400.1	-0.399	34.896	1453.7	28.042	28.797	-0.413	28.044	5.510	0.066
450.0	-0.489	34.894	1454.1	28.045	28.741	-0.505	28.046	5.077	0.069
500.0	-0.606	34.888	1454.4	28.046	28.660	-0.623	28.047	4.786	0.071
600.0	-0.700	34.888	1455.6	28.050	28.624	-0.721	28.051	4.086	0.075
700.0	-0.821	34.884	1456.7	28.051	28.563	-0.845	28.053	3.478	0.079
800.0	-0.894	34.883	1458.1	28.054	28.545	-0.922	28.056	2.836	0.082
900.0	-0.955	34.883	1459.5	28.056	28.537	-0.987	28.058	2.244	0.085
998.0	-0.936	34.887	1461.2	28.059	28.599	-0.973	28.061	1.765	0.087

STATION 46 72-46.5N 3- 1.6W 9/20/89 0.1 HRS GMT, 999 RECORDS
WIND KNOTS/DIR 20/ 20, AIR TEMP. 4.0° C, DEW PT 4.0° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/r	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	4.048	33.915	1465.4	26.918	31.079	4.048	26.918	112.537	0.000
5.0	4.040	33.918	1465.4	26.921	31.676	4.039	26.921	112.287	0.006
10.0	4.046	33.918	1465.6	26.920	31.684	4.045	26.921	112.397	0.011
15.0	4.028	33.918	1465.6	26.923	31.670	4.027	26.923	112.207	0.017
20.0	3.984	33.929	1465.5	26.935	31.644	3.983	26.936	111.033	0.022
25.0	3.553	34.031	1463.9	27.059	31.355	3.551	27.060	99.285	0.028
30.0	0.665	34.459	1451.9	27.631	29.206	0.664	27.632	44.961	0.032
40.0	-0.267	34.645	1448.0	27.833	28.556	-0.269	27.833	25.789	0.035
50.0	-0.233	34.721	1448.5	27.893	28.647	-0.235	27.893	20.125	0.037
75.0	0.432	34.844	1452.1	27.955	29.321	0.429	27.956	14.318	0.041
100.1	0.357	34.872	1452.2	27.982	29.289	0.353	27.983	11.785	0.044
125.0	0.377	34.895	1452.7	28.000	29.336	0.372	28.001	10.099	0.047
150.0	0.378	34.904	1453.2	28.007	29.355	0.372	28.008	9.476	0.049
175.0	0.179	34.899	1452.7	28.014	29.191	0.172	28.015	8.735	0.052
200.5	0.042	34.896	1452.4	28.020	29.084	0.035	28.021	8.135	0.054
250.0	-0.273	34.884	1451.8	28.027	28.827	-0.282	28.028	7.264	0.058
300.0	-0.365	34.887	1452.2	28.034	28.774	-0.375	28.035	6.498	0.061
350.0	-0.461	34.887	1452.6	28.038	28.714	-0.473	28.039	5.950	0.064
400.0	-0.553	34.887	1453.0	28.042	28.658	-0.567	28.043	5.374	0.067
450.0	-0.614	34.887	1453.6	28.045	28.629	-0.629	28.046	4.956	0.070
500.0	-0.646	34.886	1454.2	28.046	28.623	-0.664	28.047	4.741	0.072
600.0	-0.752	34.884	1455.4	28.049	28.577	-0.772	28.050	4.101	0.076
700.0	-0.814	34.885	1456.8	28.052	28.570	-0.839	28.054	3.399	0.080
800.0	-0.884	34.883	1458.1	28.054	28.553	-0.912	28.056	2.871	0.083
900.1	-0.921	34.882	1459.6	28.055	28.565	-0.954	28.056	2.469	0.086
998.0	-0.944	34.884	1461.2	28.057	28.590	-0.981	28.059	1.937	0.088

STATION 47 71-54.4N 4-14.5W 9/20/89 7.1 HRS GMT, 1000 RECORDS
WIND KNOTS/DIR 35/ 25, AIR TEMP. 3.9° C, DEW PT 3.9° C

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDS PD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
0.0	5.371	34.568	1471.8	27.288	33.410	5.371	27.289	77.397	0.000
5.0	5.372	34.568	1471.8	27.289	33.414	5.371	27.289	77.429	0.004
10.0	5.373	34.568	1471.9	27.288	33.417	5.372	27.289	77.531	0.008
15.0	5.371	34.569	1472.0	27.289	33.418	5.370	27.290	77.508	0.012
20.0	5.379	34.572	1472.1	27.291	33.430	5.377	27.292	77.385	0.015
25.0	5.347	34.575	1472.1	27.297	33.407	5.345	27.298	76.875	0.019
30.0	5.340	34.576	1472.1	27.299	33.403	5.337	27.300	76.767	0.023
40.0	3.257	34.536	1463.5	27.491	31.522	3.255	27.491	58.541	0.031
50.0	-0.494	34.542	1447.0	27.760	28.291	-0.496	27.761	32.627	0.035
75.1	-0.912	34.680	1445.7	27.890	28.052	-0.914	27.891	20.161	0.041
100.0	-0.434	34.771	1448.4	27.943	28.537	-0.437	27.944	15.242	0.046
125.0	-0.102	34.818	1450.4	27.964	28.866	-0.107	27.965	13.336	0.049
150.0	0.266	34.865	1452.6	27.982	29.229	0.260	27.983	11.769	0.052
175.2	0.228	34.873	1452.8	27.991	29.214	0.221	27.992	10.965	0.055
200.0	0.308	34.890	1453.6	28.000	29.306	0.300	28.001	10.183	0.058
250.2	0.265	34.898	1454.3	28.009	29.299	0.255	28.010	9.289	0.063
300.2	0.096	34.894	1454.3	28.015	29.173	0.084	28.016	8.616	0.067
350.0	0.039	34.900	1454.9	28.023	29.151	0.025	28.024	7.860	0.071
400.0	-0.069	34.899	1455.2	28.028	29.081	-0.085	28.030	7.197	0.075
450.0	-0.161	34.899	1455.6	28.033	29.025	-0.179	28.034	6.625	0.078
500.0	-0.229	34.902	1456.2	28.038	28.992	-0.248	28.040	6.013	0.081
600.0	-0.504	34.895	1456.6	28.046	28.796	-0.526	28.048	4.715	0.087
700.0	-0.658	34.897	1457.5	28.055	28.712	-0.683	28.057	3.436	0.091
800.0	-0.720	34.899	1458.9	28.059	28.705	-0.749	28.061	2.735	0.094
900.0	-0.731	34.899	1460.5	28.060	28.739	-0.765	28.061	2.483	0.097
998.0	-0.747	34.898	1462.1	28.060	28.768	-0.786	28.062	2.188	0.099

STATION 48 70-59.6N 6-31.3W 9/20/89 15.1 HRS GMT, 989 RECORDS
WIND KNOTS/DIR 30/ 10, AIR TEMP. .0° C, DEW PT .0° C

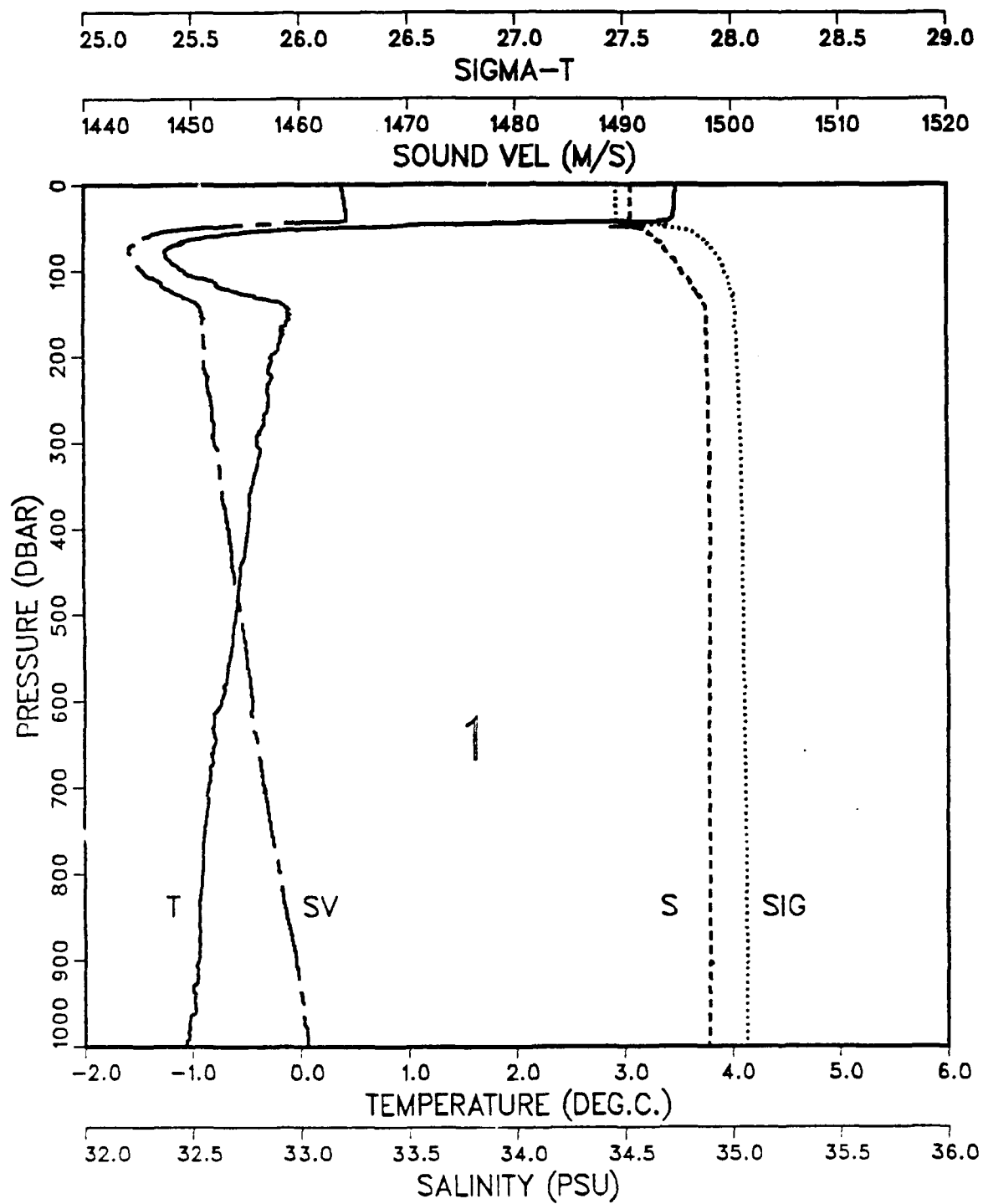
PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
11.0	3.617	34.040	1463.9	27.060	31.412	3.617	27.061	99.125	0.011
15.0	3.616	34.039	1464.0	27.060	31.413	3.615	27.060	99.173	0.015
20.0	3.605	34.043	1464.0	27.064	31.408	3.604	27.064	98.851	0.020
25.0	3.602	34.045	1464.1	27.066	31.410	3.601	27.066	98.715	0.025
30.0	3.566	34.043	1464.0	27.067	31.378	3.564	27.068	98.571	0.030
40.6	0.047	34.451	1449.2	27.660	28.678	0.045	27.661	42.142	0.036
50.0	-0.436	34.543	1447.3	27.758	28.342	-0.438	27.759	32.794	0.040
75.3	-0.718	34.638	1446.2	27.850	28.134	-0.780	27.851	23.987	0.047
100.0	-0.519	34.714	1448.0	27.901	28.422	-0.522	27.901	19.241	0.052
125.0	-0.100	34.795	1450.4	27.945	28.850	-0.104	27.946	15.116	0.057
150.0	0.087	34.829	1451.7	27.963	29.047	0.081	27.964	13.529	0.060
175.0	0.225	34.854	1452.8	27.975	29.197	0.218	27.976	12.404	0.063
200.0	0.305	34.872	1453.6	27.985	29.290	0.297	27.986	11.542	0.066
250.0	0.381	34.892	1454.8	27.997	29.394	0.370	27.998	10.473	0.072
300.0	0.416	34.907	1455.8	28.007	29.459	0.404	28.008	9.634	0.077
350.0	0.316	34.906	1456.2	28.012	29.394	0.302	28.013	9.121	0.082
400.1	0.213	34.905	1456.5	28.017	29.327	0.196	28.019	8.558	0.086
450.0	0.047	34.903	1456.6	28.025	29.206	0.029	28.026	7.663	0.090
500.0	-0.104	34.901	1456.7	28.031	29.098	-0.124	28.033	6.830	0.094
600.0	-0.284	34.900	1457.6	28.040	28.988	-0.308	28.042	5.674	0.100
700.0	-0.432	34.901	1458.6	28.048	28.907	-0.459	28.050	4.549	0.105
800.1	-0.539	34.899	1459.7	28.052	28.859	-0.570	28.053	3.859	0.109
900.0	-0.617	34.901	1461.1	28.057	28.838	-0.652	28.059	3.038	0.113
998.0	-0.684	34.902	1462.4	28.060	28.824	-0.723	28.062	2.381	0.115

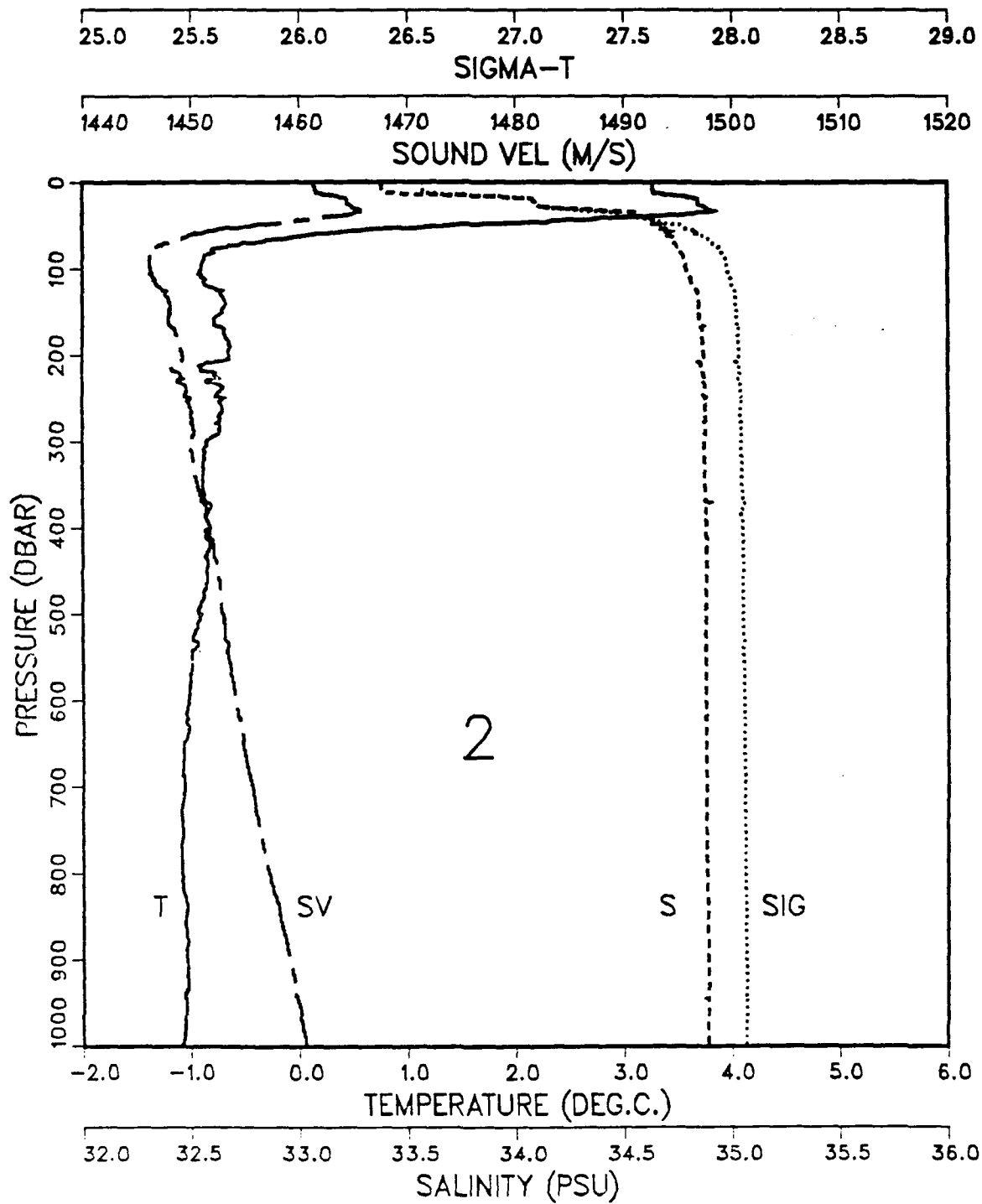
STATION 48 70-59.1N 6-31.1W 9/20/89 16.1 HRS GMT, 1231 RECORDS
WIND KNOTS/DIR 28/ 20, AIR TEMP. .0° C, DEW PT .0° C

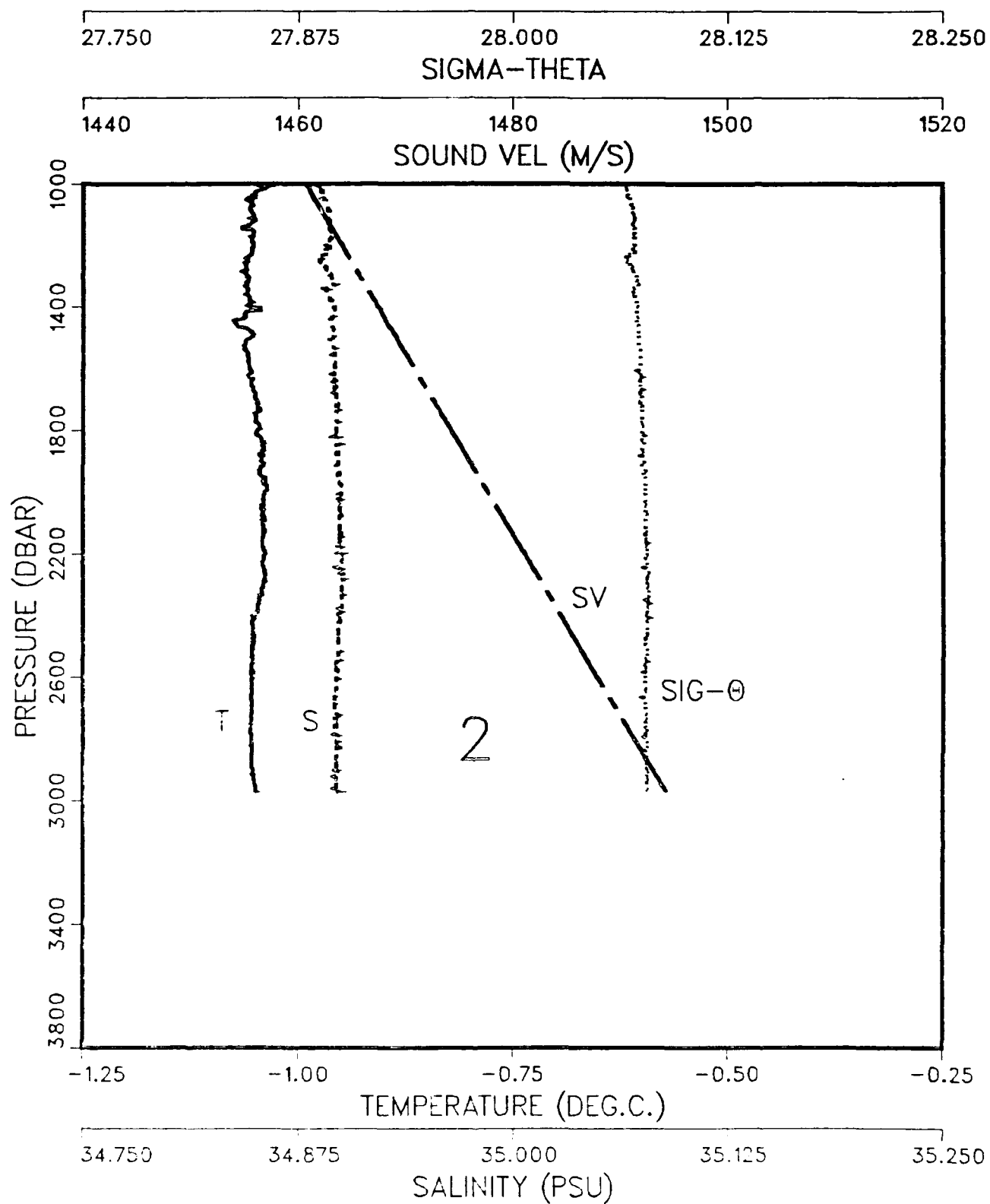
PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m ³	COND dS/m	THETA °C	SIGTH kg/m ³	SVA x10 ⁸	DYNDTH DYN M
998.0	-0.685	34.908	1462.4	28.065	28.827	-0.724	28.067	1.918	0.000
1000.0	-0.686	34.908	1462.4	28.065	28.828	-0.725	28.067	1.908	0.000
1200.1	-0.778	34.907	1465.3	28.069	28.835	-0.826	28.071	0.873	0.003
1400.1	-0.855	34.906	1468.4	28.071	28.854	-0.913	28.074	-0.061	0.004
1600.0	-0.898	34.907	1471.5	28.073	28.903	-0.966	28.076	-0.904	0.003
1800.0	-0.921	34.907	1474.8	28.075	28.966	-1.001	28.078	-1.626	0.000
2000.1	-0.933	34.910	1478.2	28.077	29.040	-1.025	28.082	-2.423	-0.004
2200.2	-0.934	34.912	1481.6	28.079	29.120	-1.039	28.083	-3.024	-0.009
2400.1	-0.933	34.900	1485.0	28.069	29.192	-1.052	28.074	-2.626	-0.015
2600.2	-0.928	34.907	1488.5	28.074	29.280	-1.061	28.080	-3.526	-0.021
2800.1	-0.919	34.908	1492.0	28.075	29.365	-1.067	28.081	-3.952	-0.029
3000.0	-0.905	34.907	1495.5	28.073	29.452	-1.069	28.081	-4.169	-0.037
3200.1	-0.889	34.905	1499.0	28.072	29.539	-1.070	28.079	-4.308	-0.045
3400.0	-0.871	34.907	1502.6	28.073	29.629	-1.069	28.081	-4.640	-0.054
3457.0	-0.865	34.906	1503.6	28.072	29.654	-1.069	28.080	-4.631	-0.057

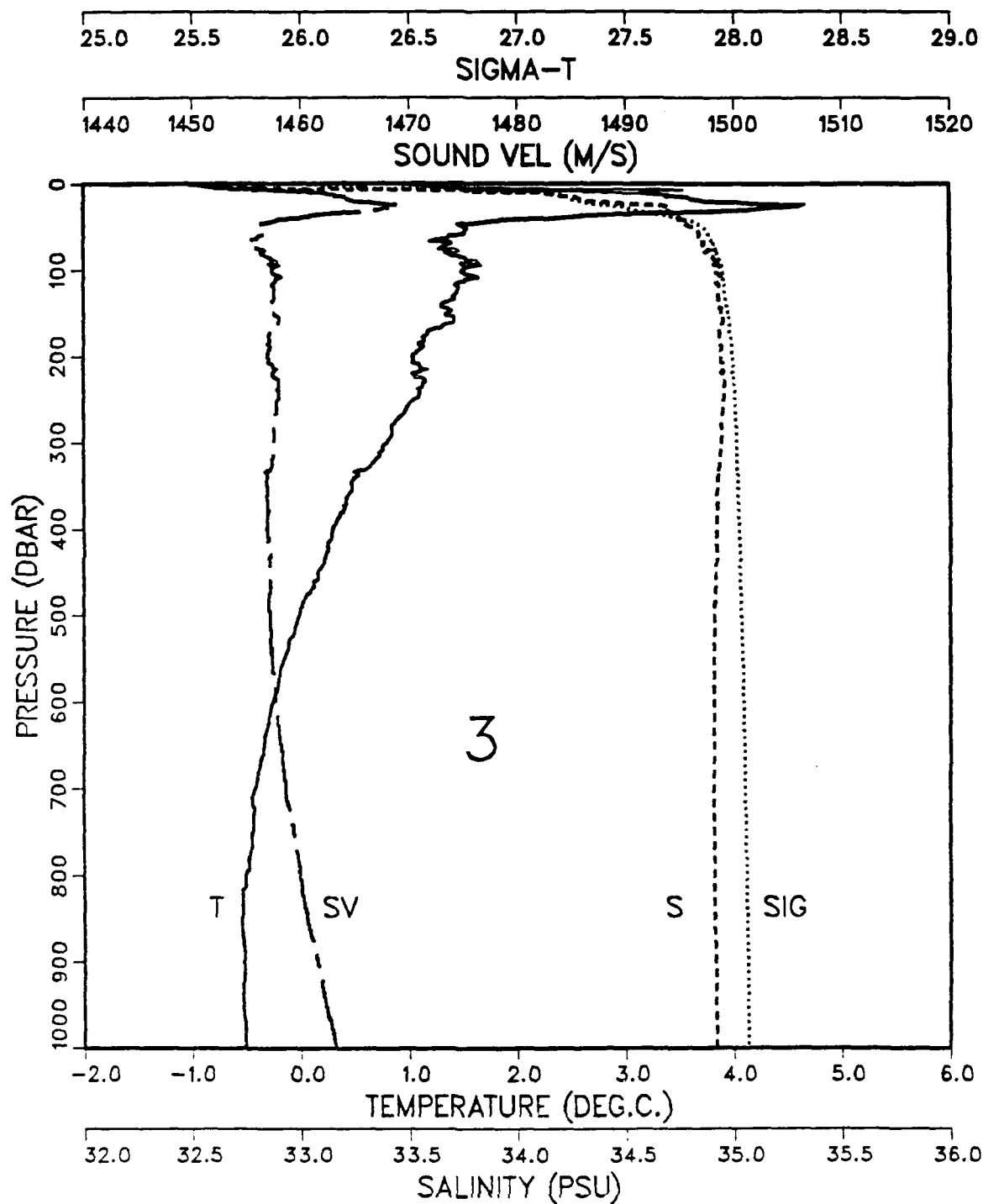
APPENDIX B

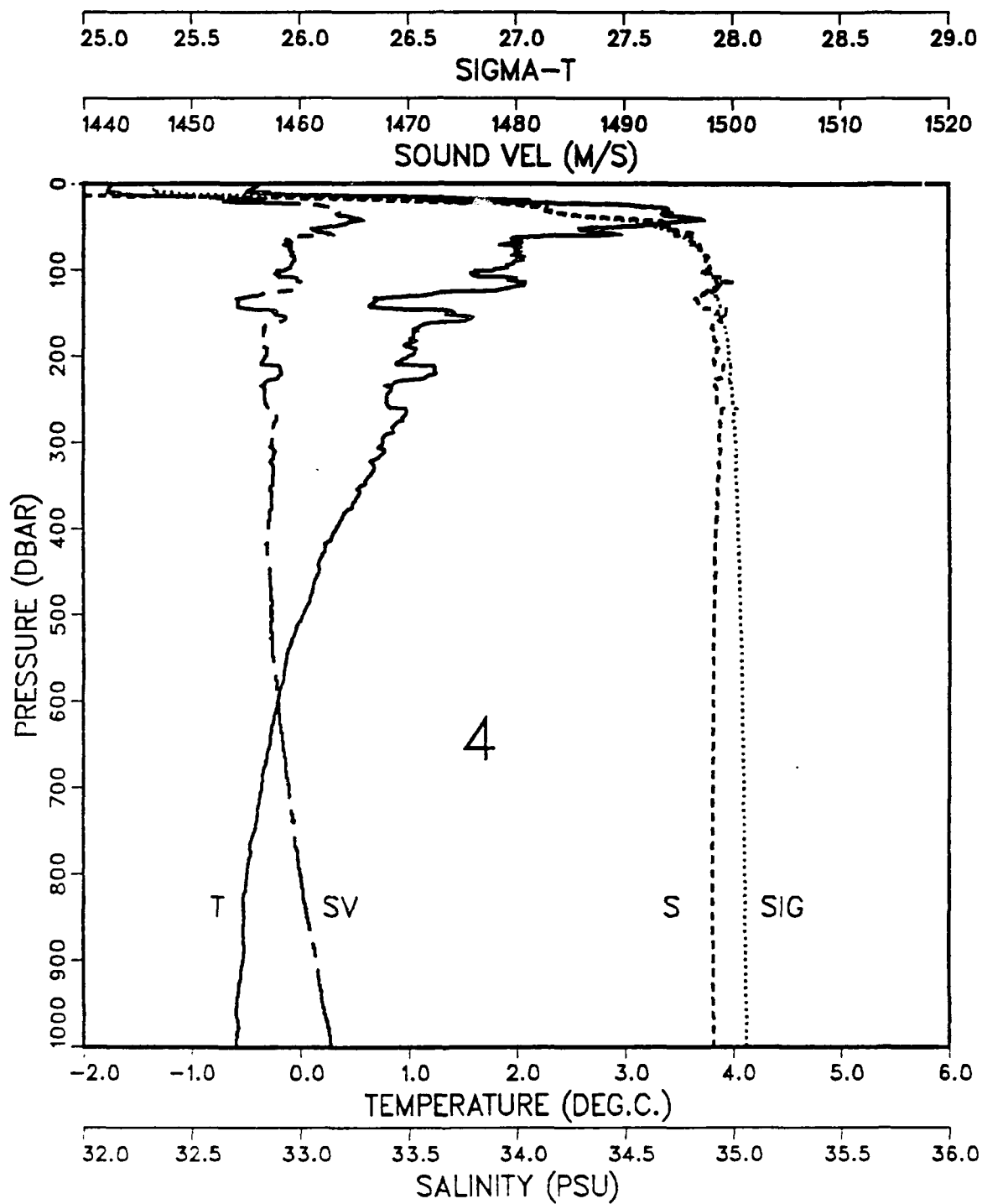
This section contains plots of temperature, salinity, sound speed and density (σ_t). The deeper portions (> 1000 m) of the five deep stations are shown on an expanded scale to better illustrate the small changes in properties at these deep depths. In addition, the density anomaly for the deep stations is plotted as σ_θ rather than σ_t to give a truer picture of water column stability.

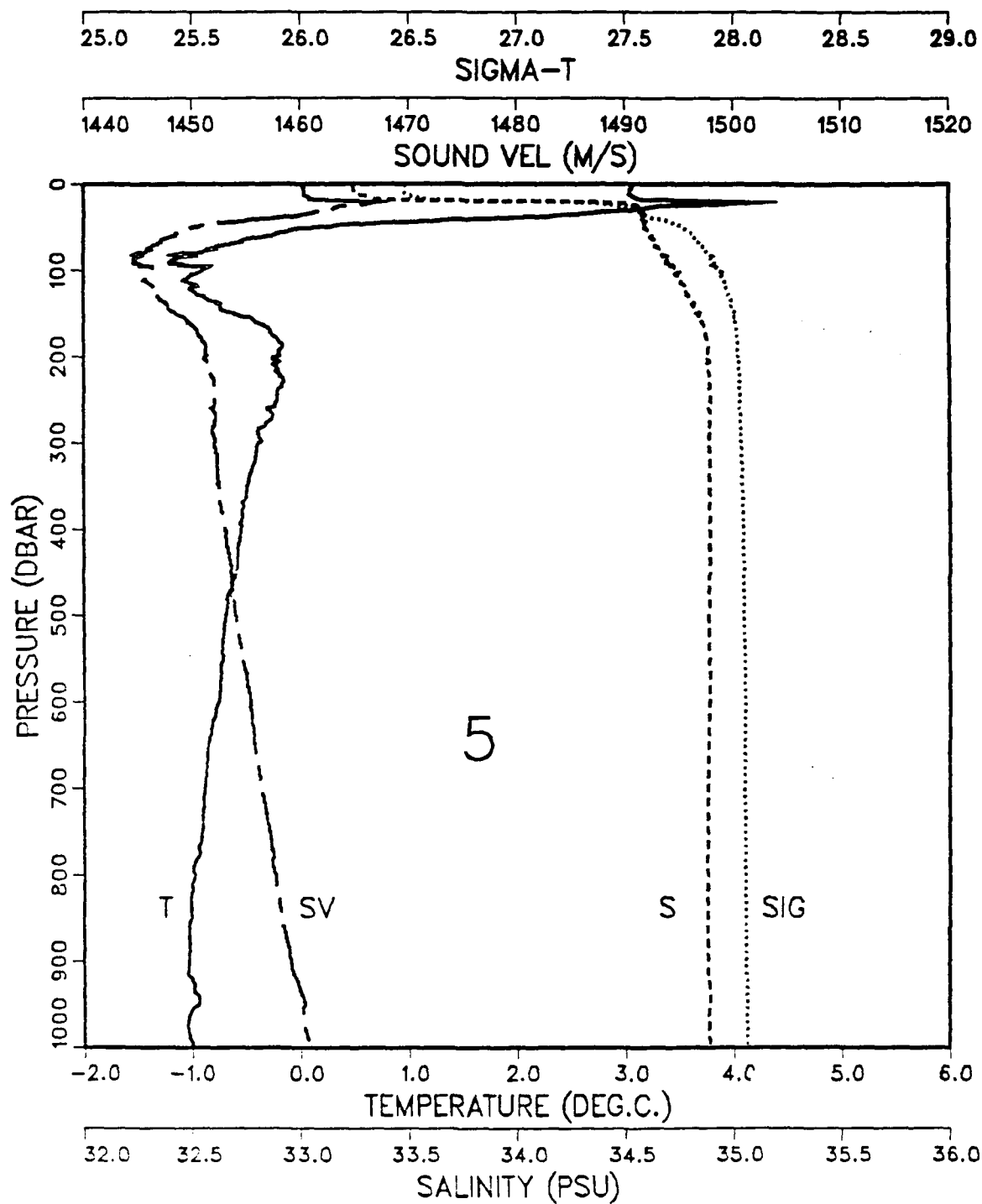


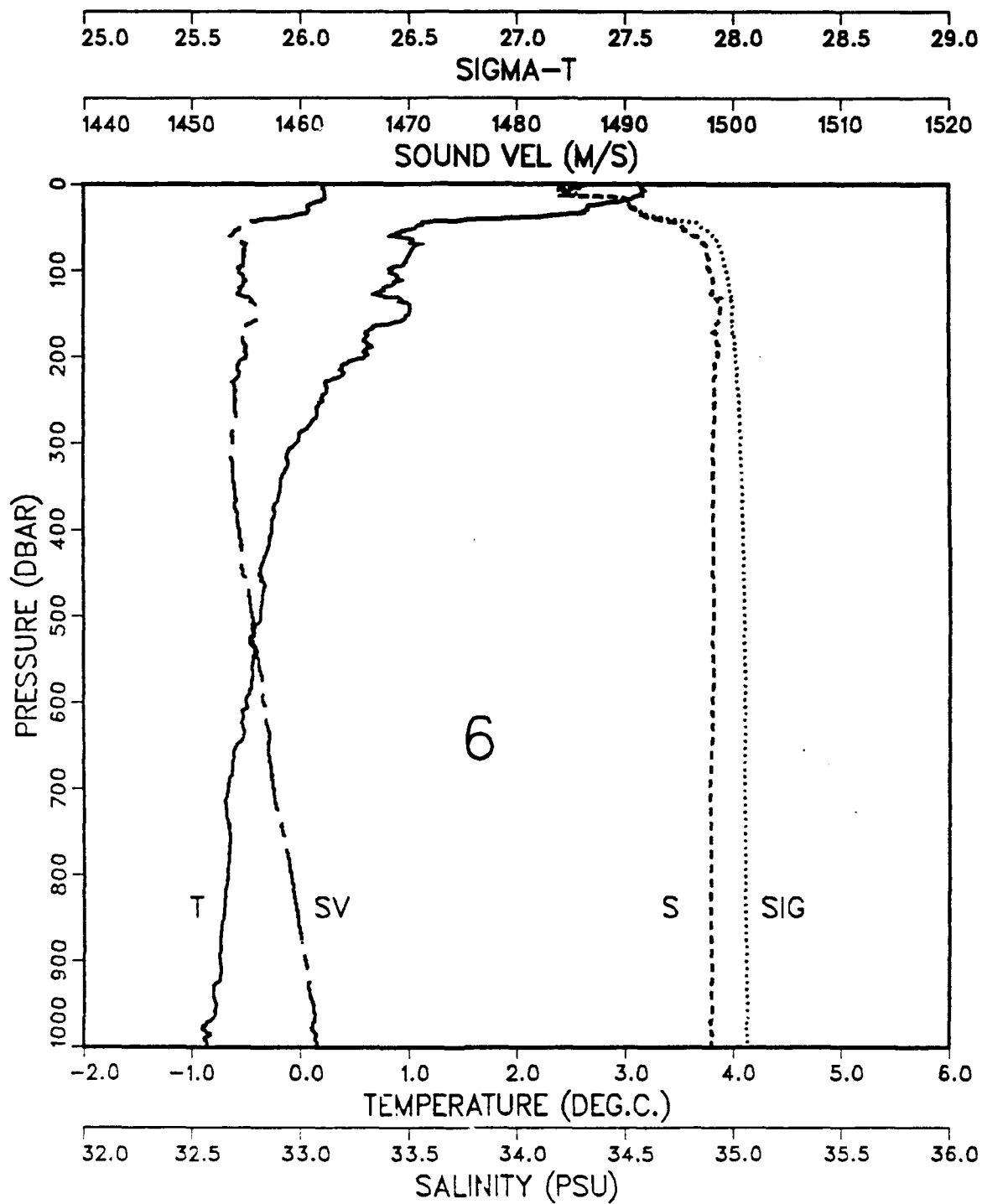


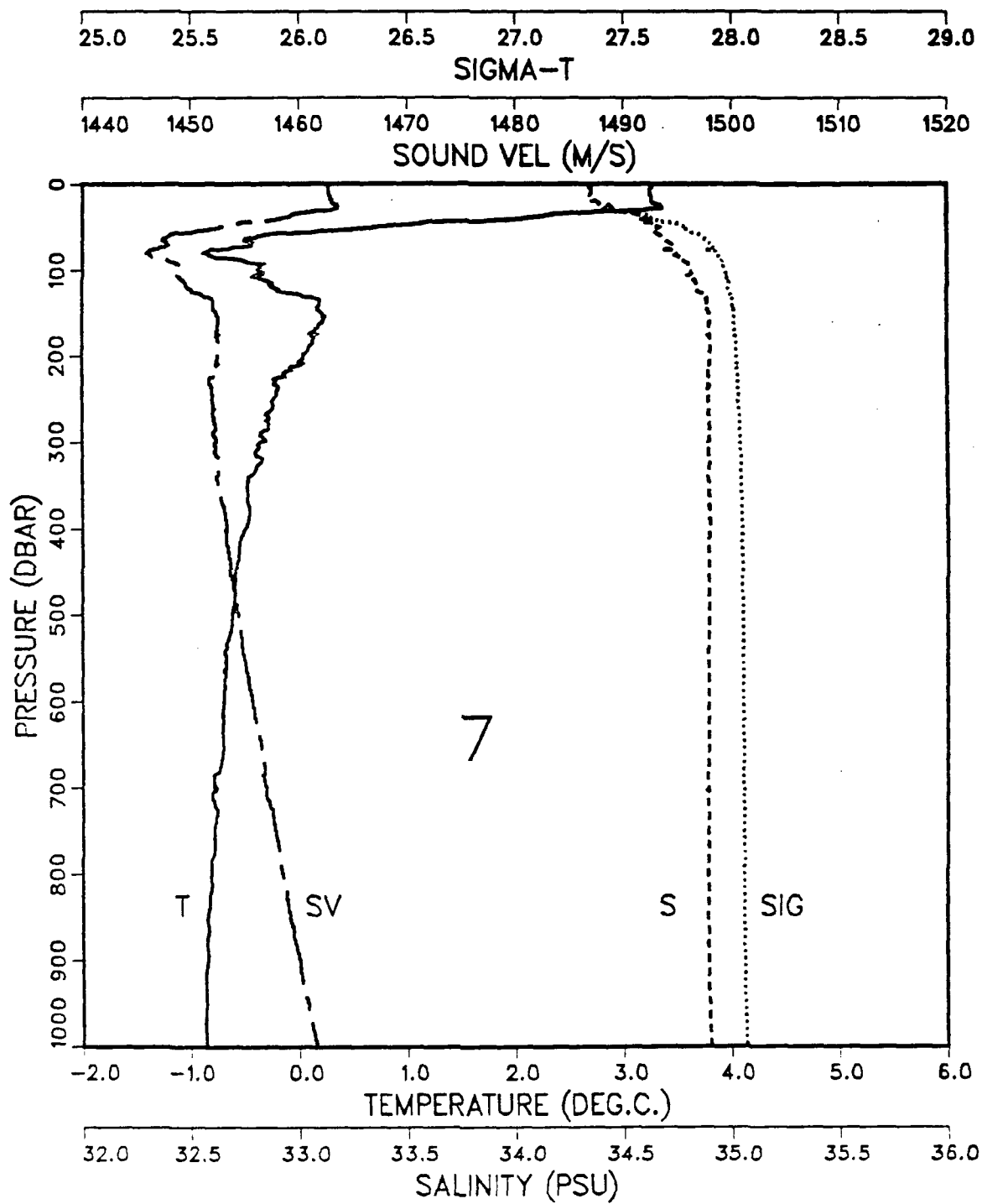


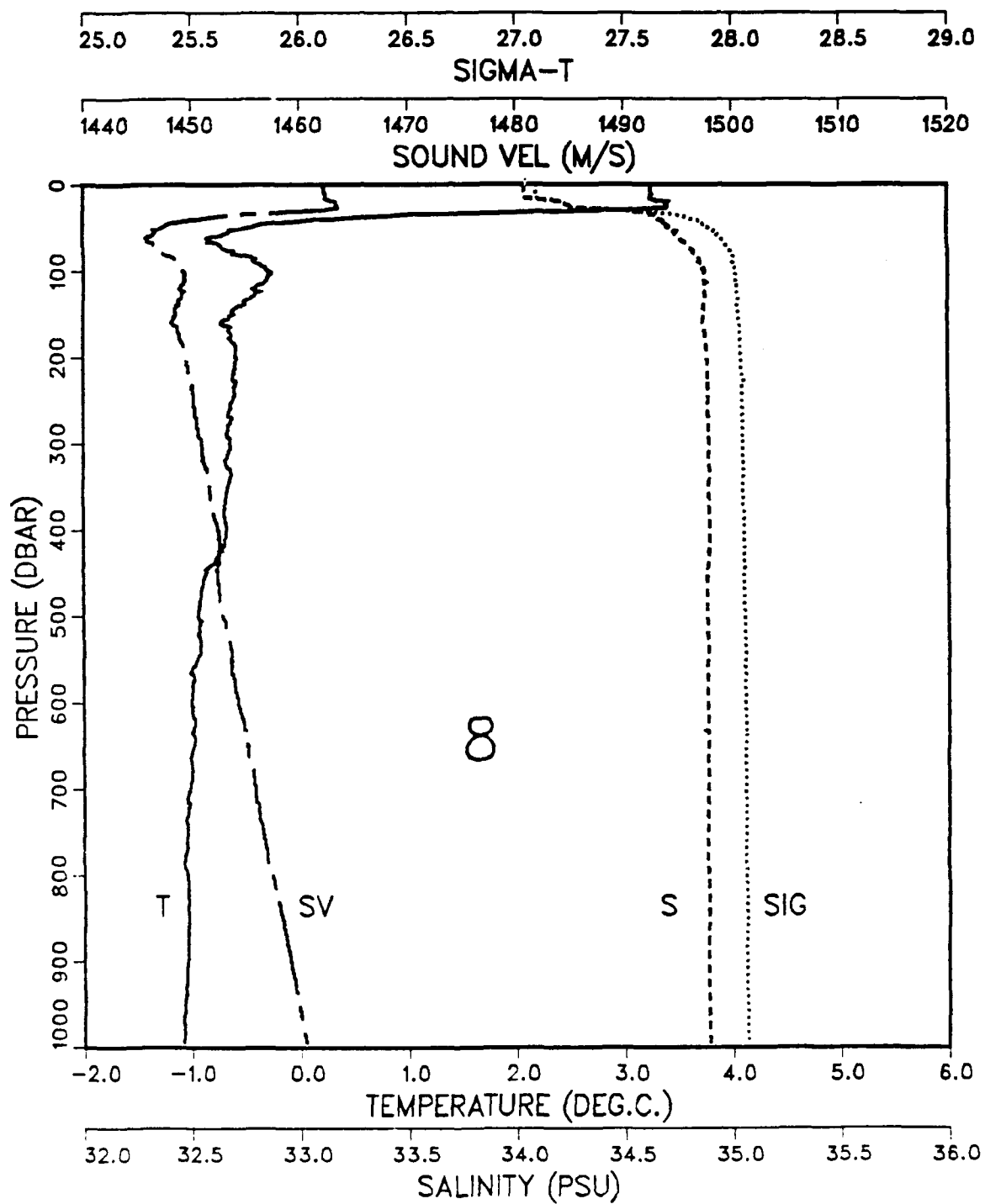


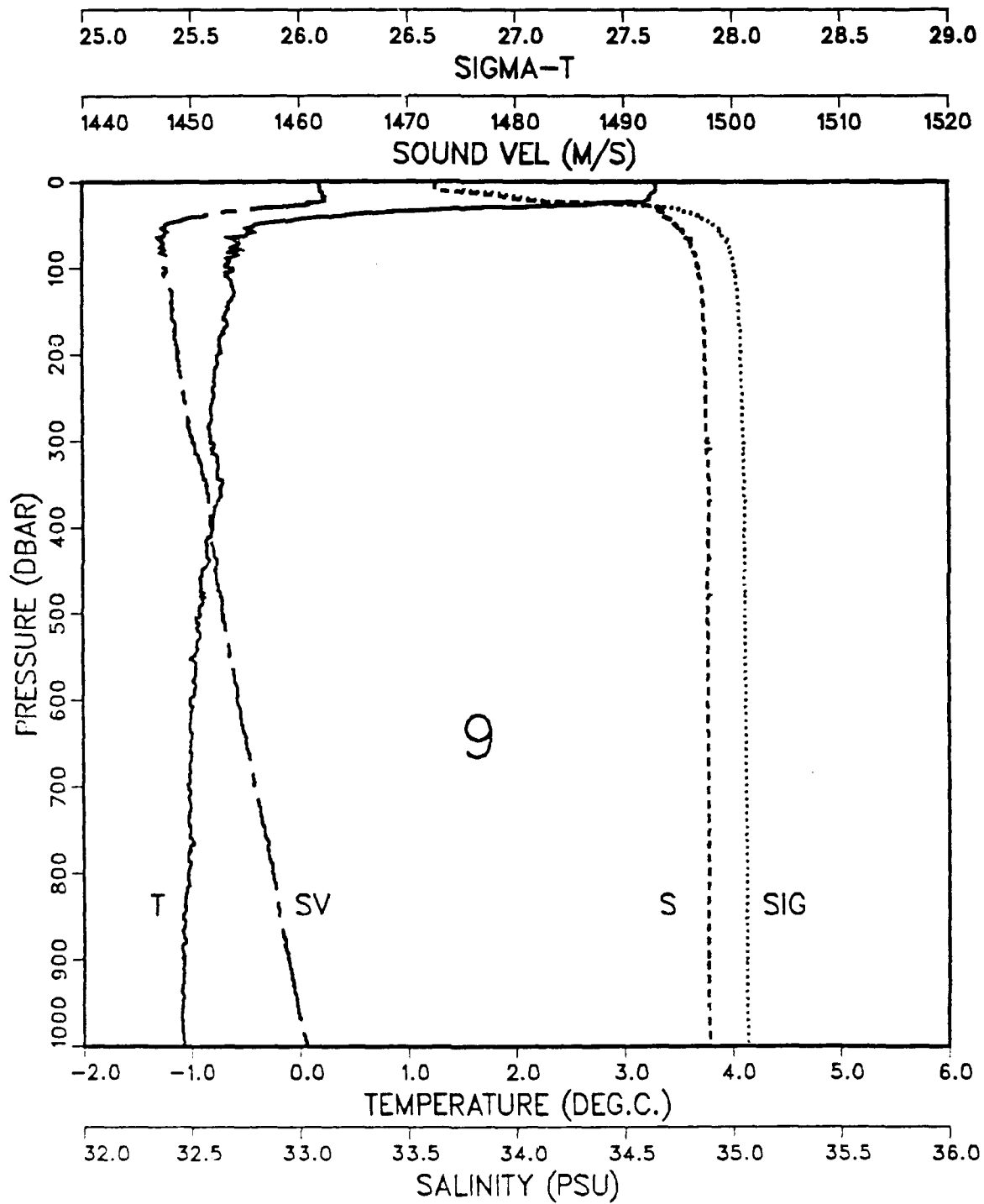


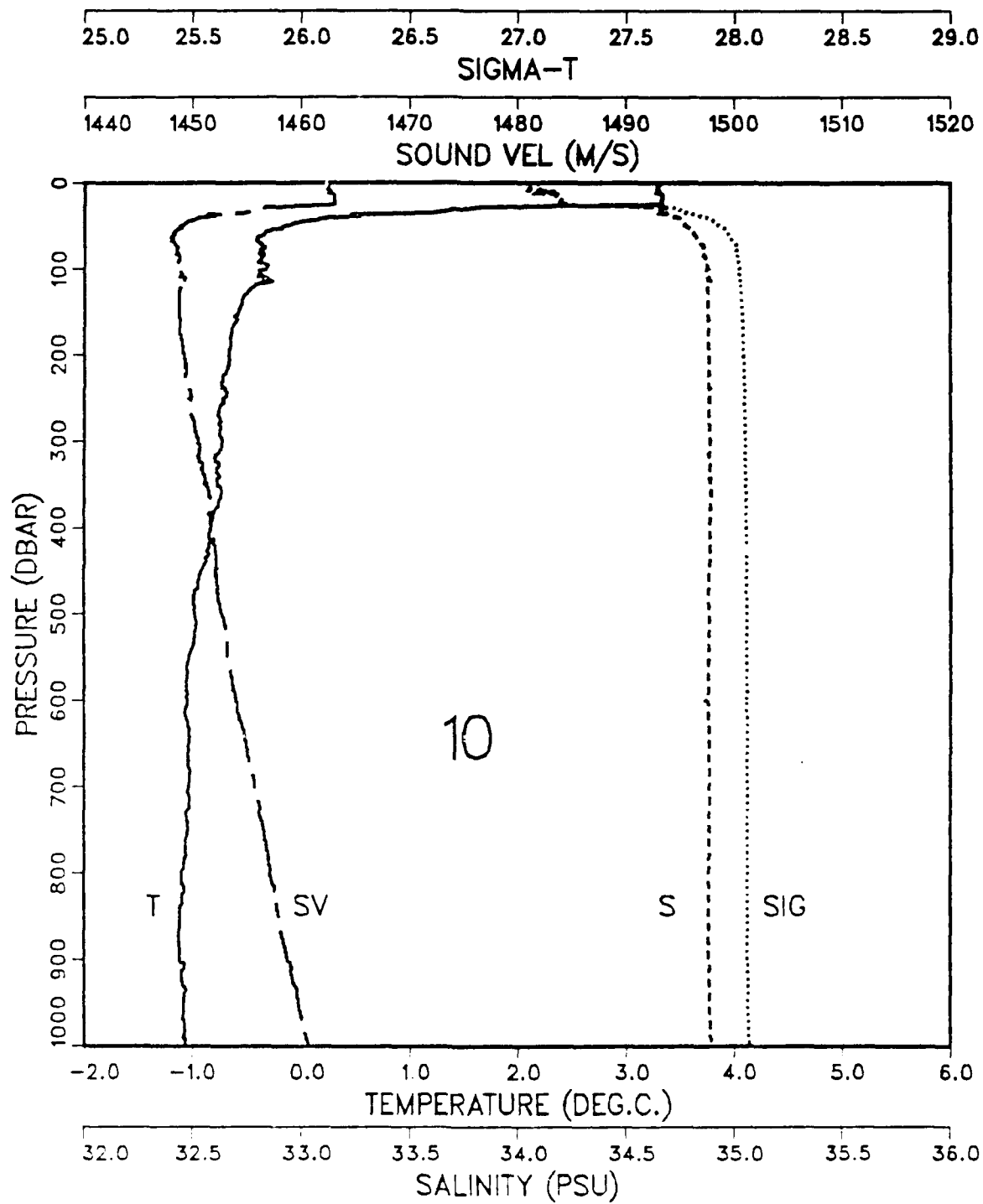


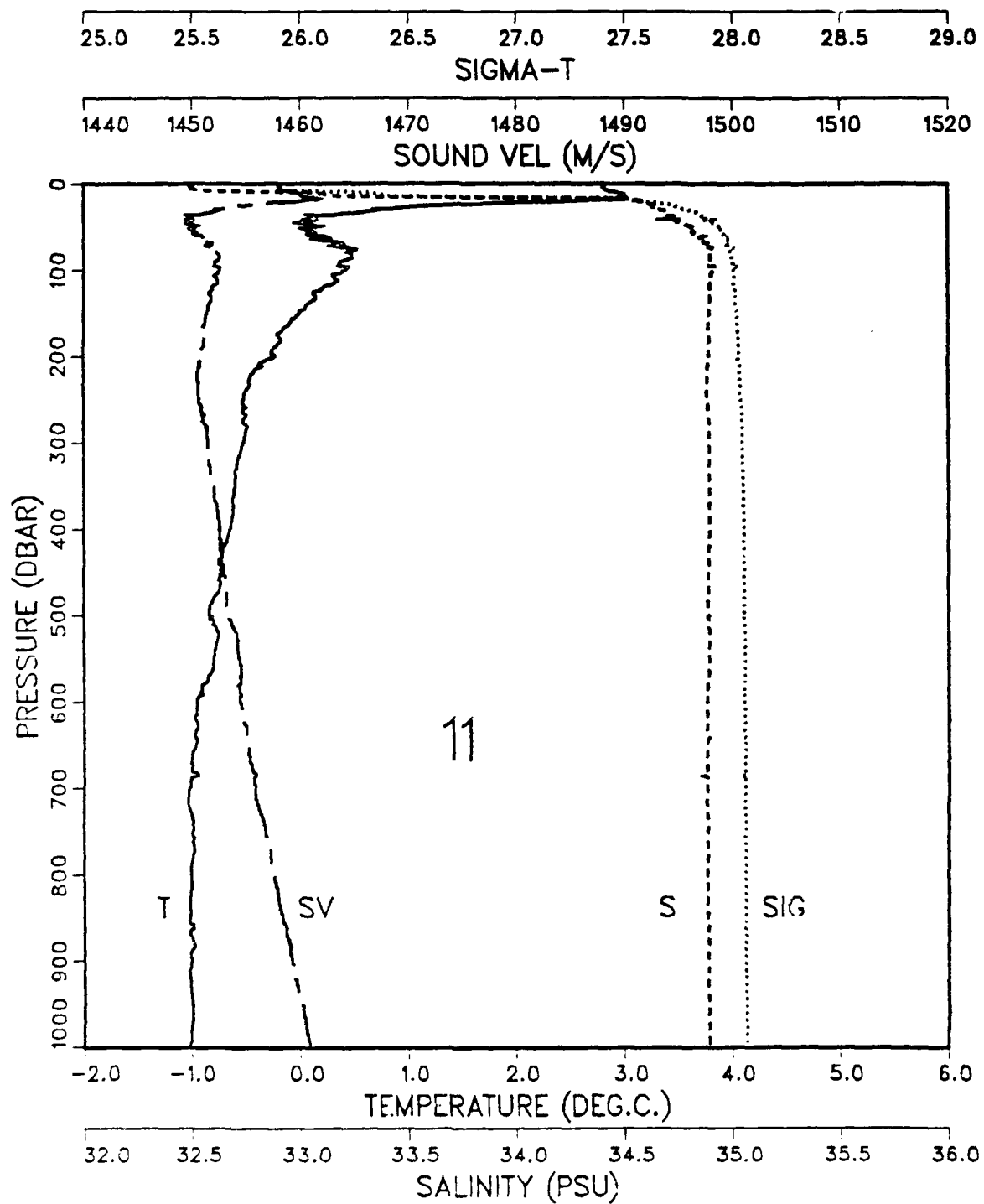


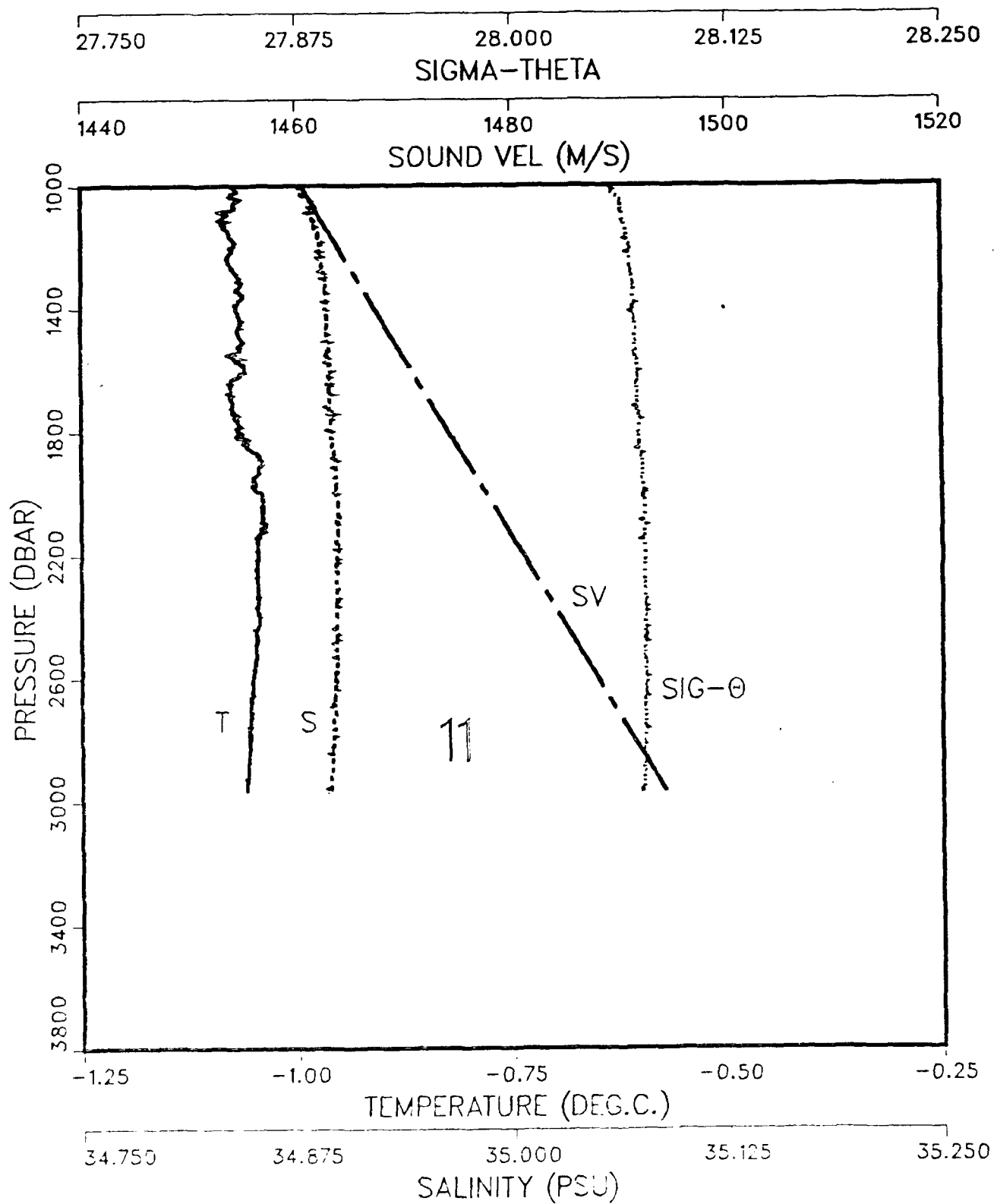


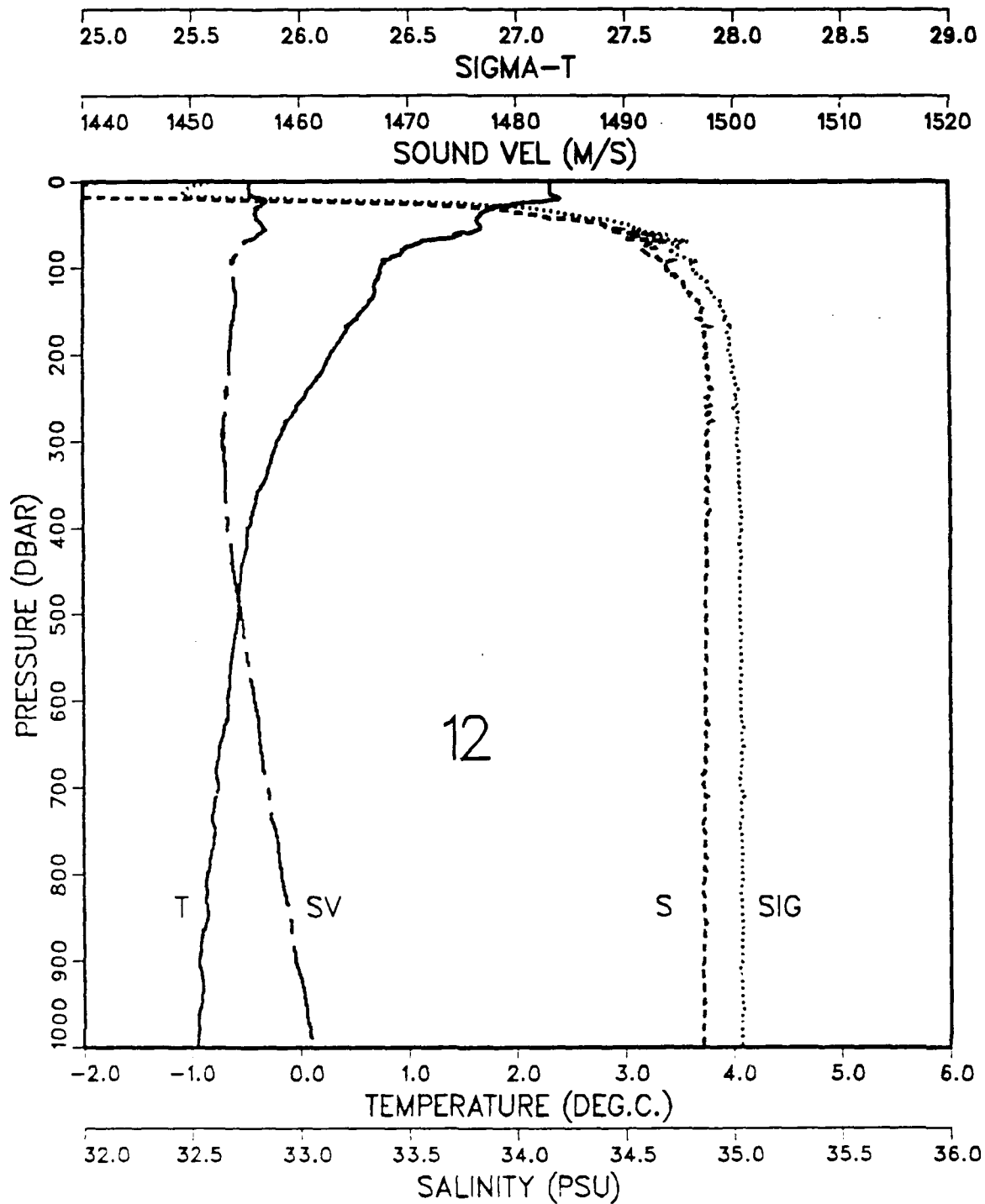


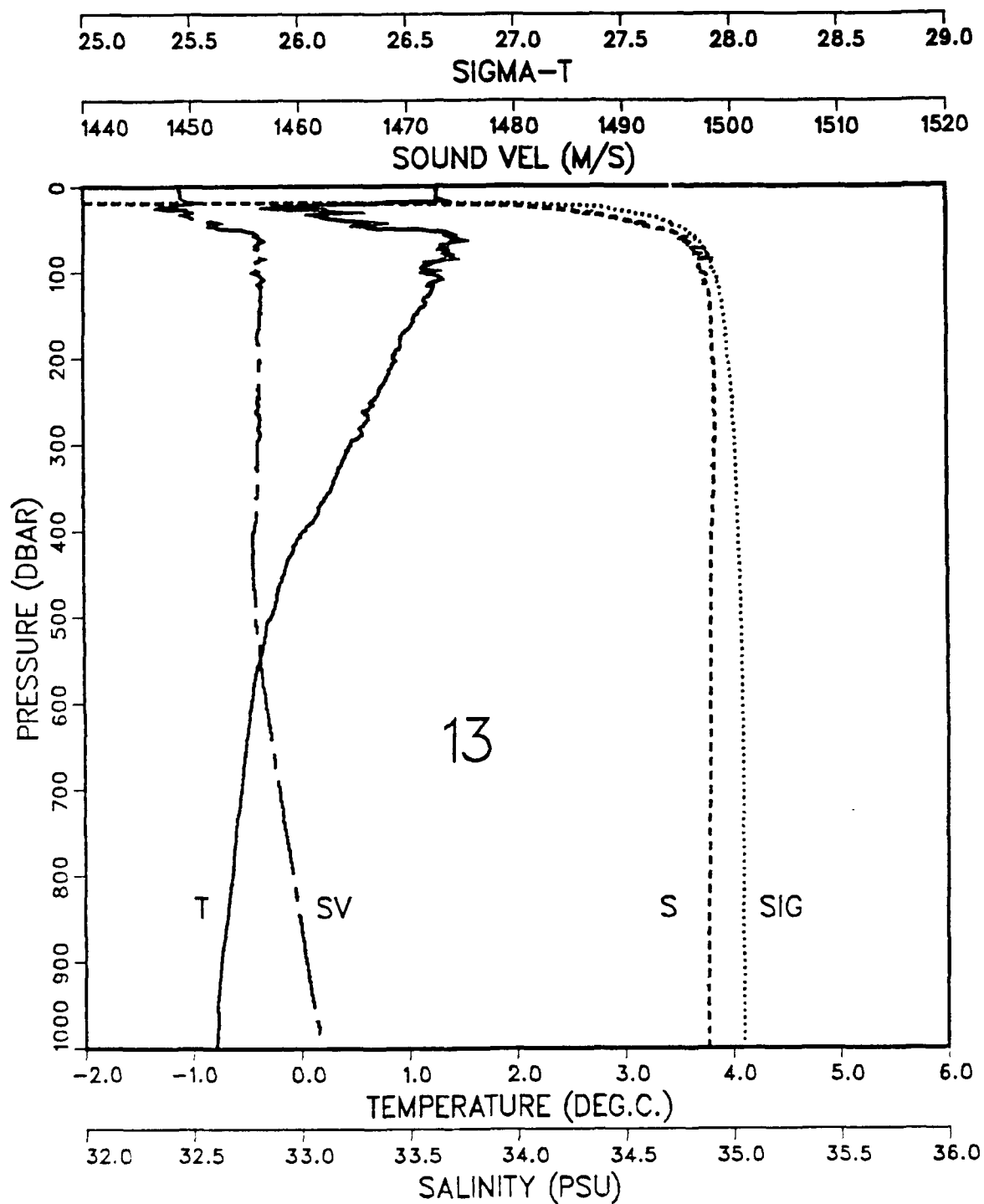


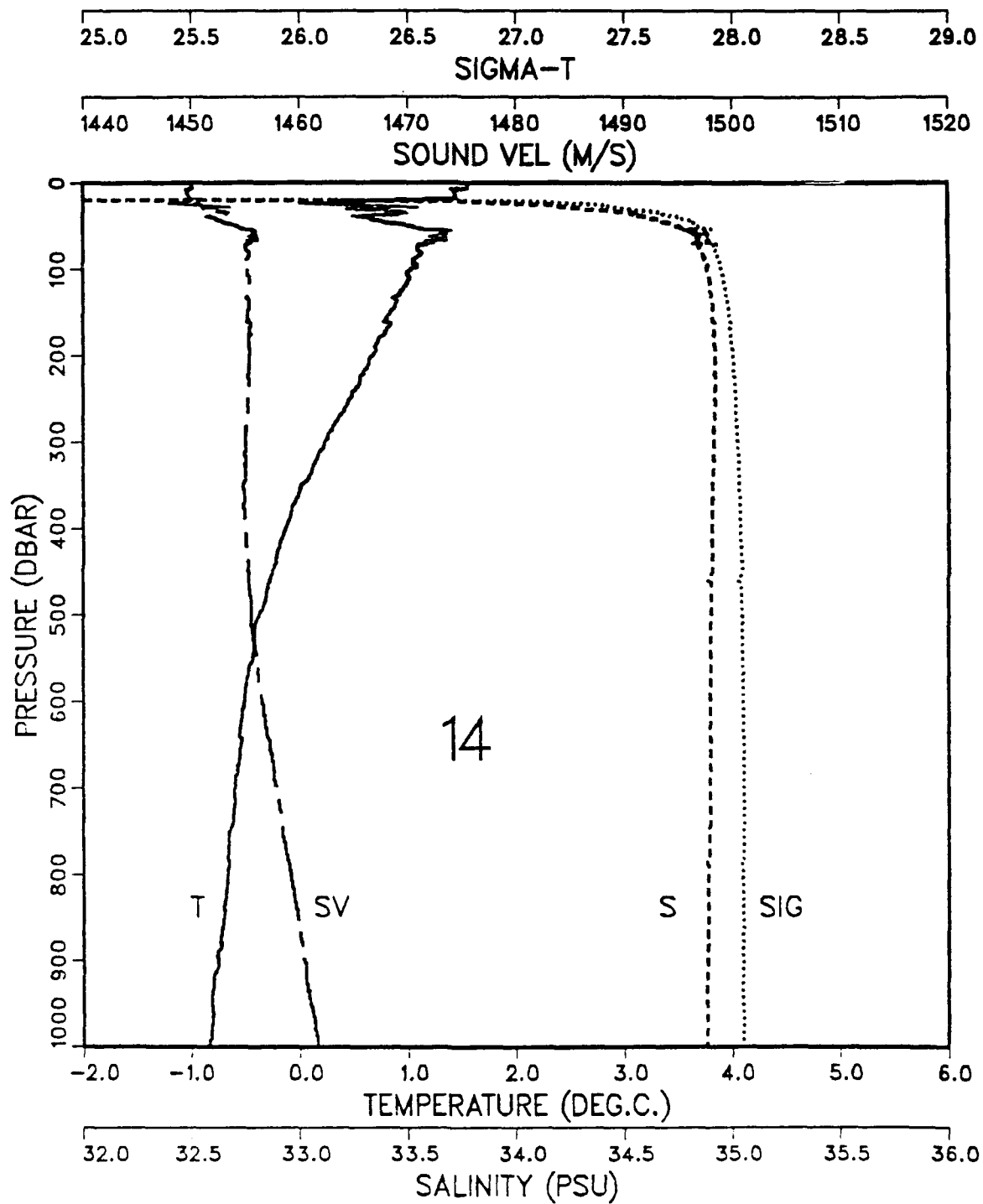


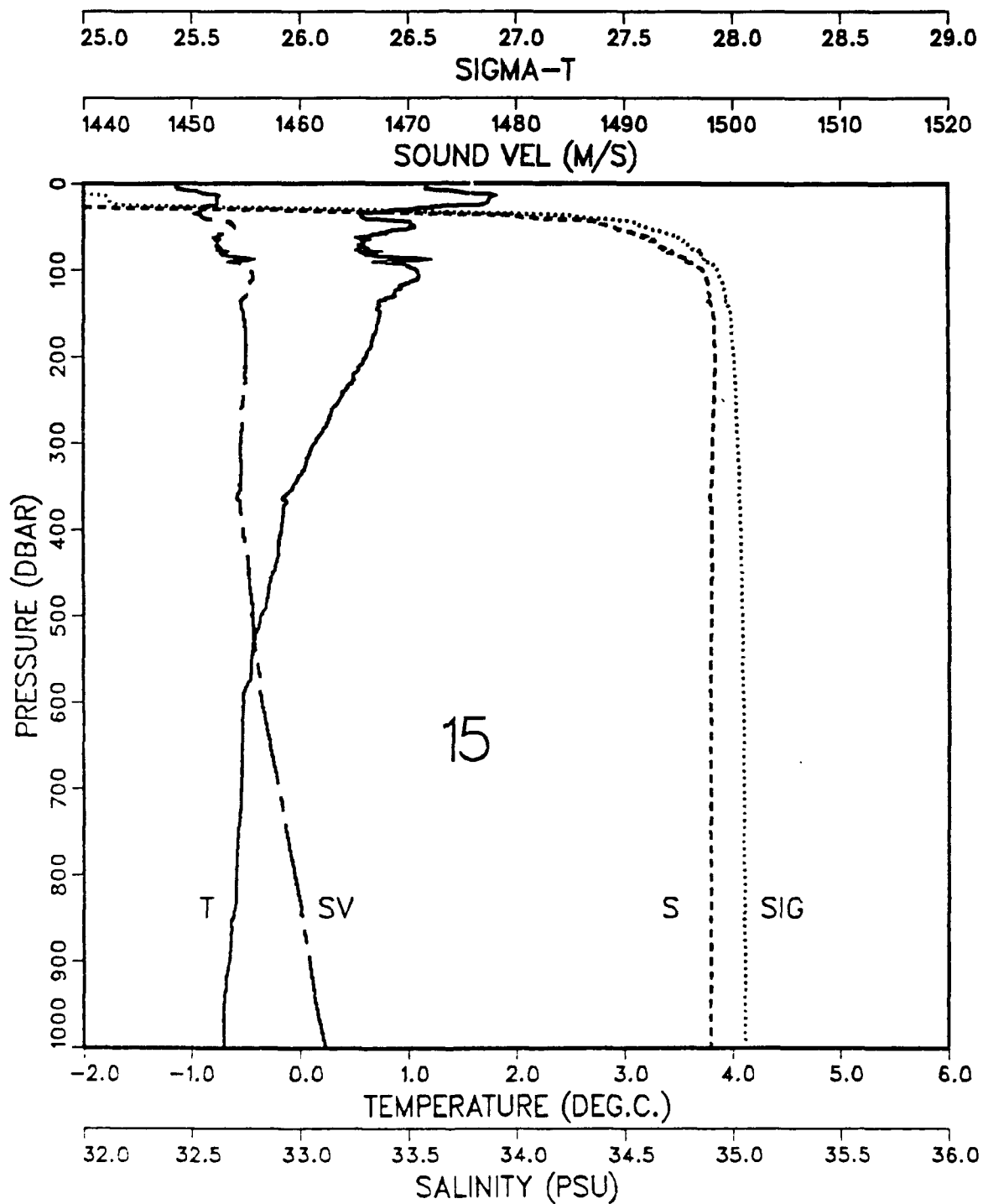


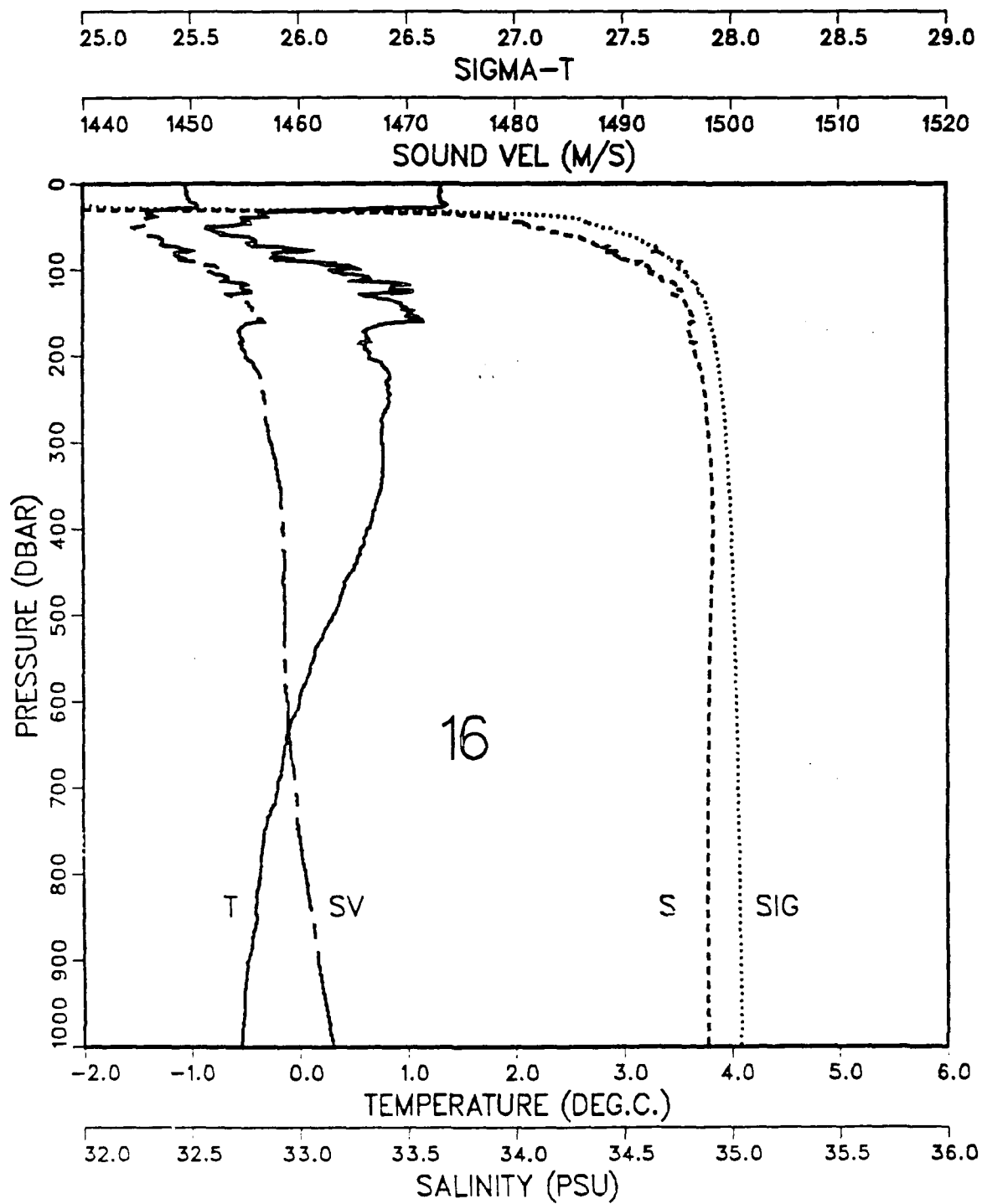


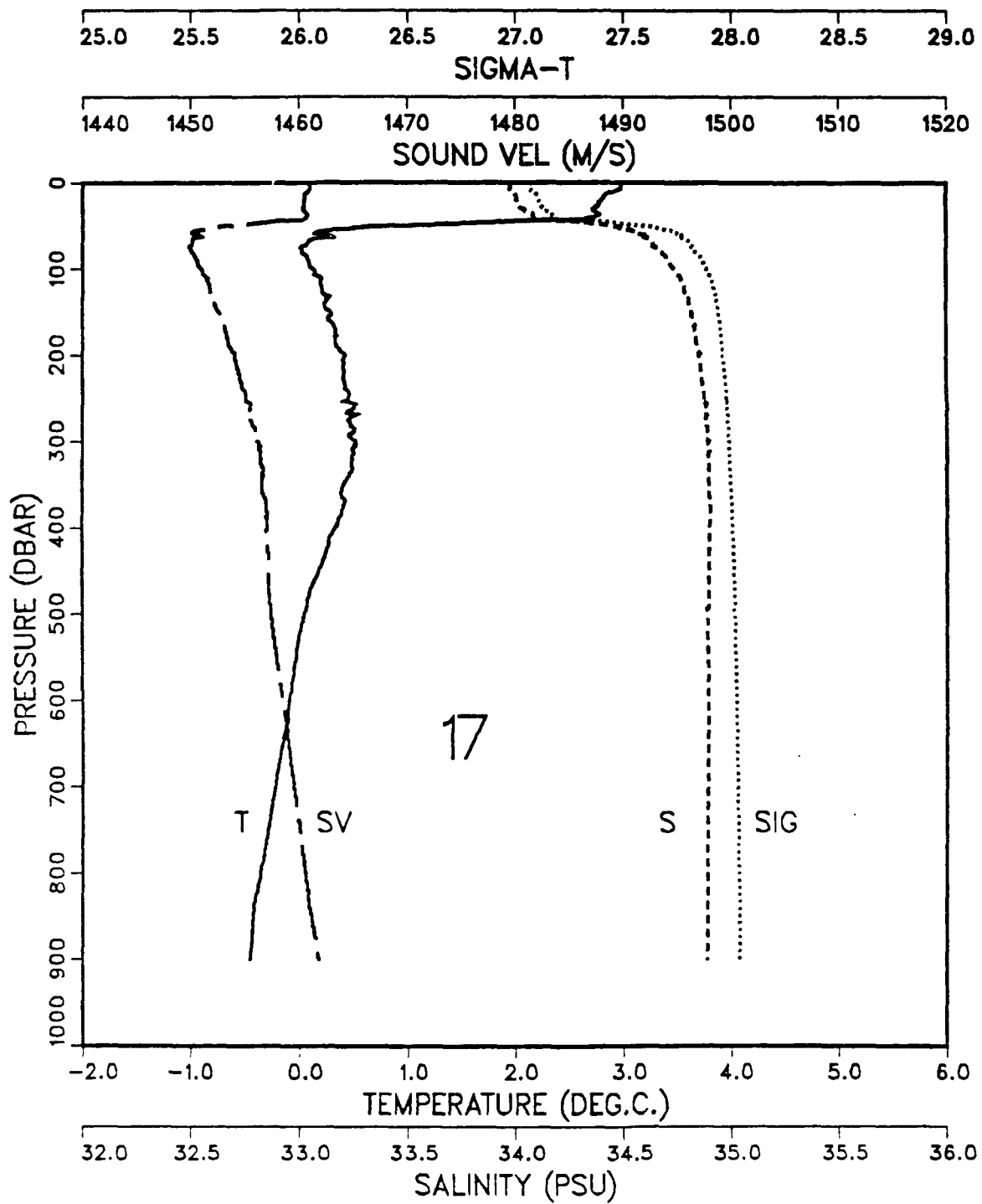


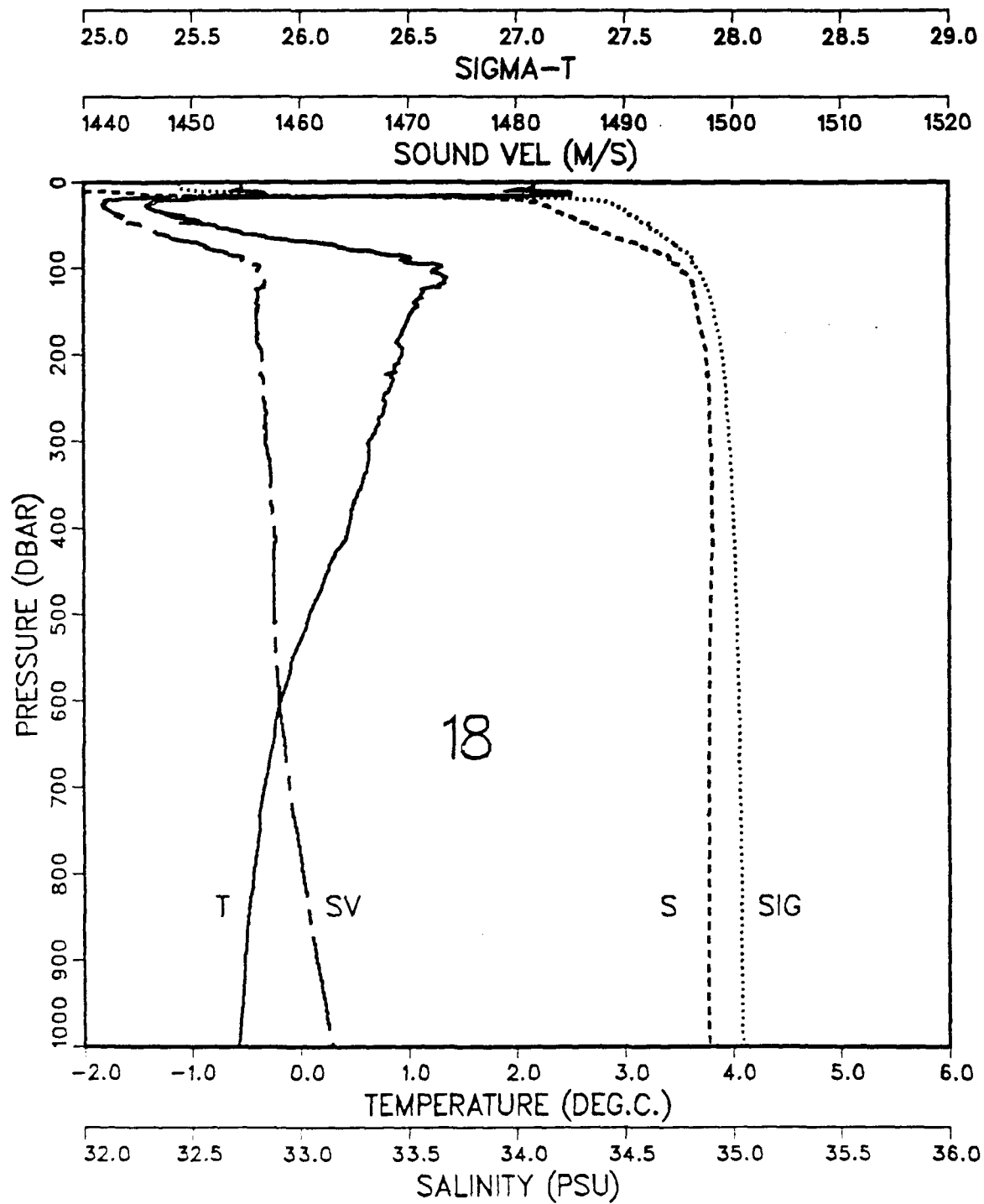


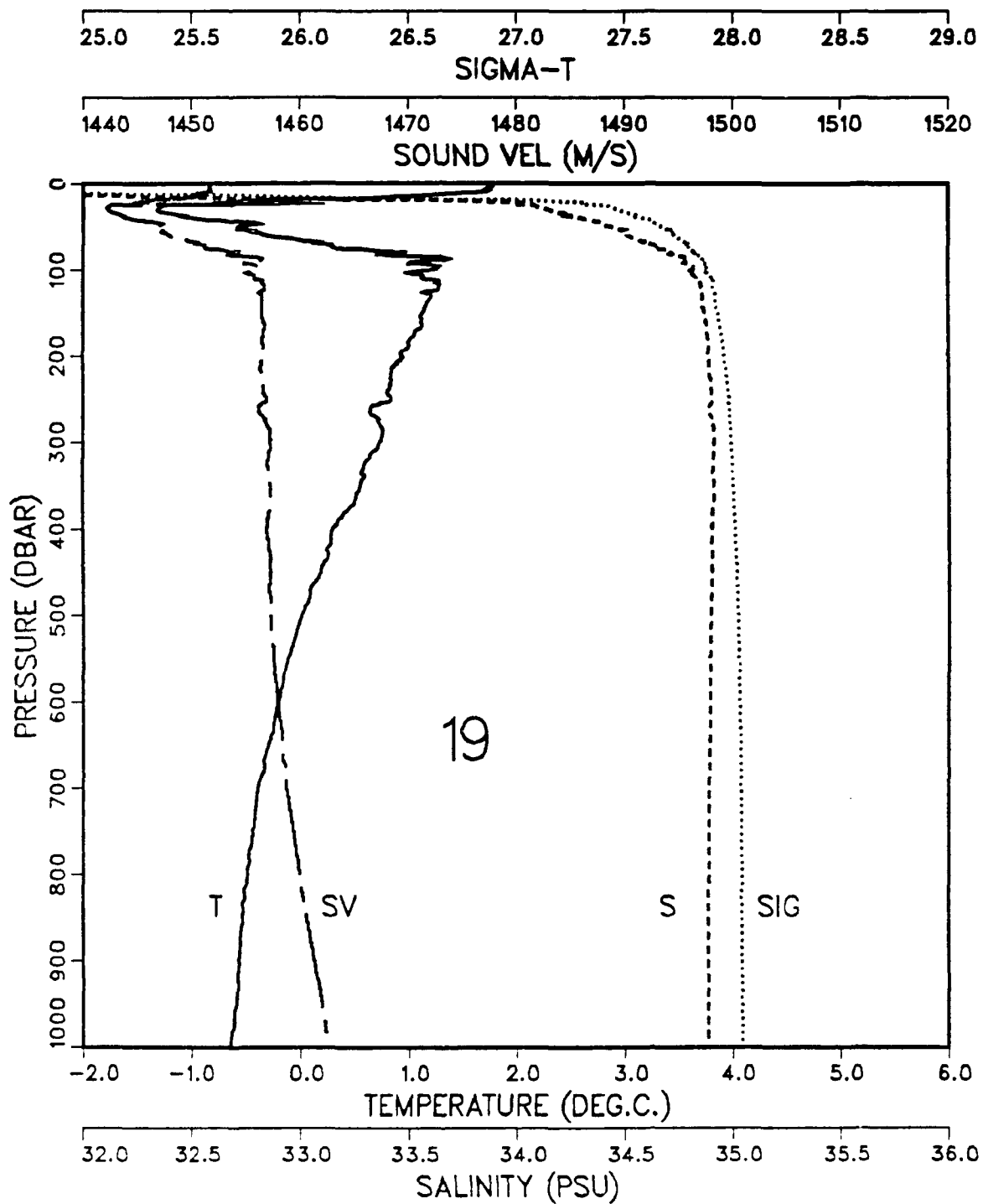


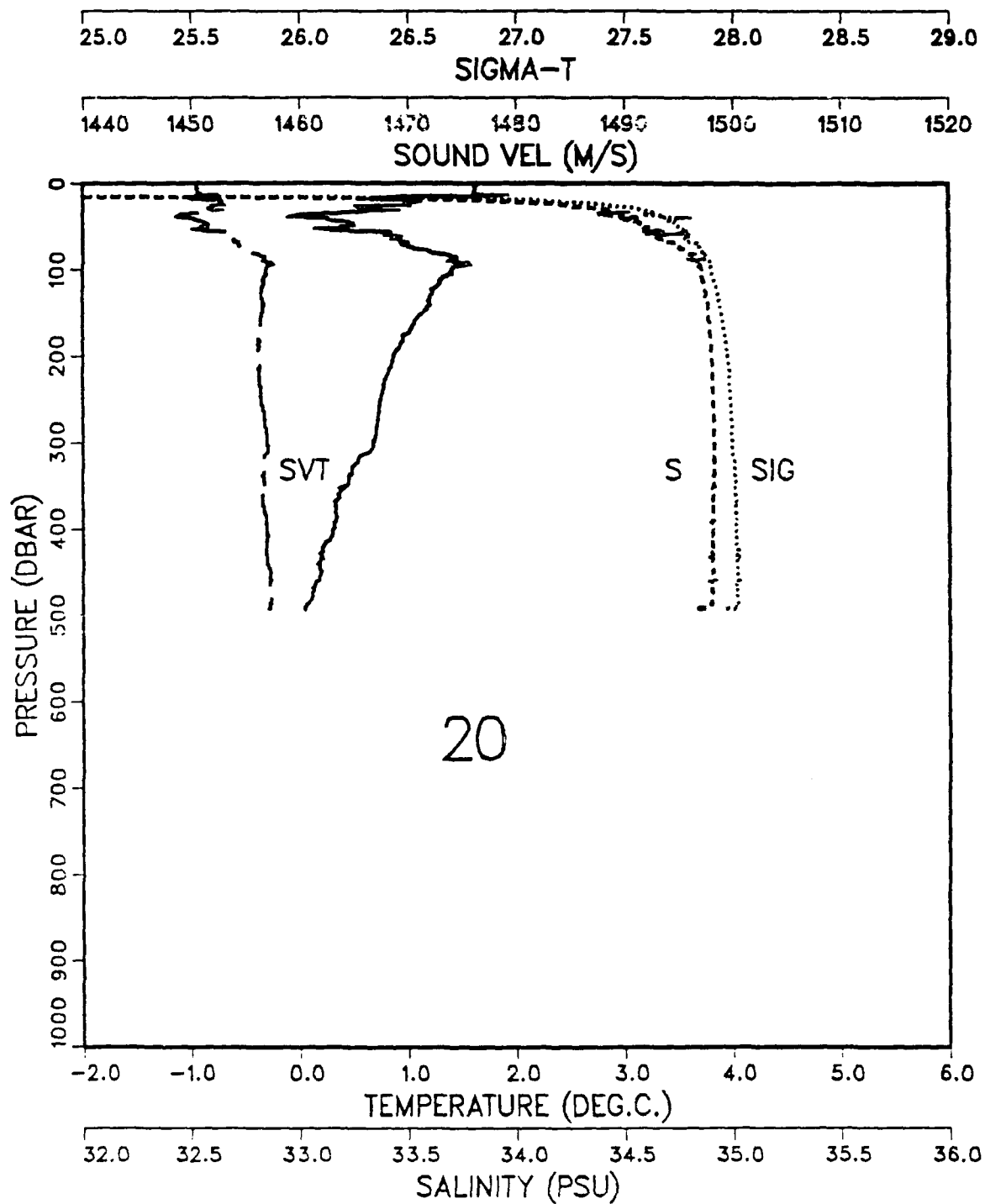


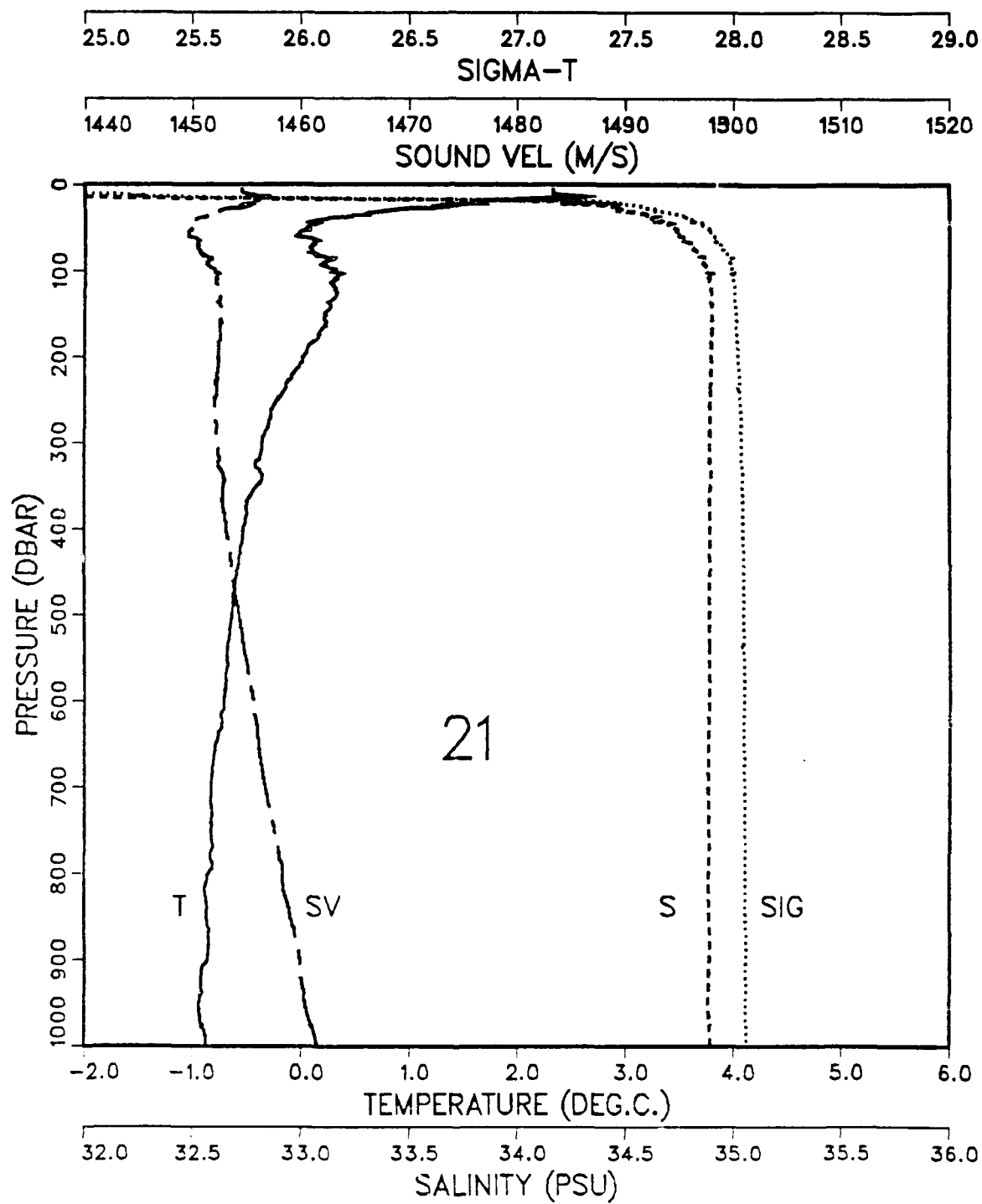


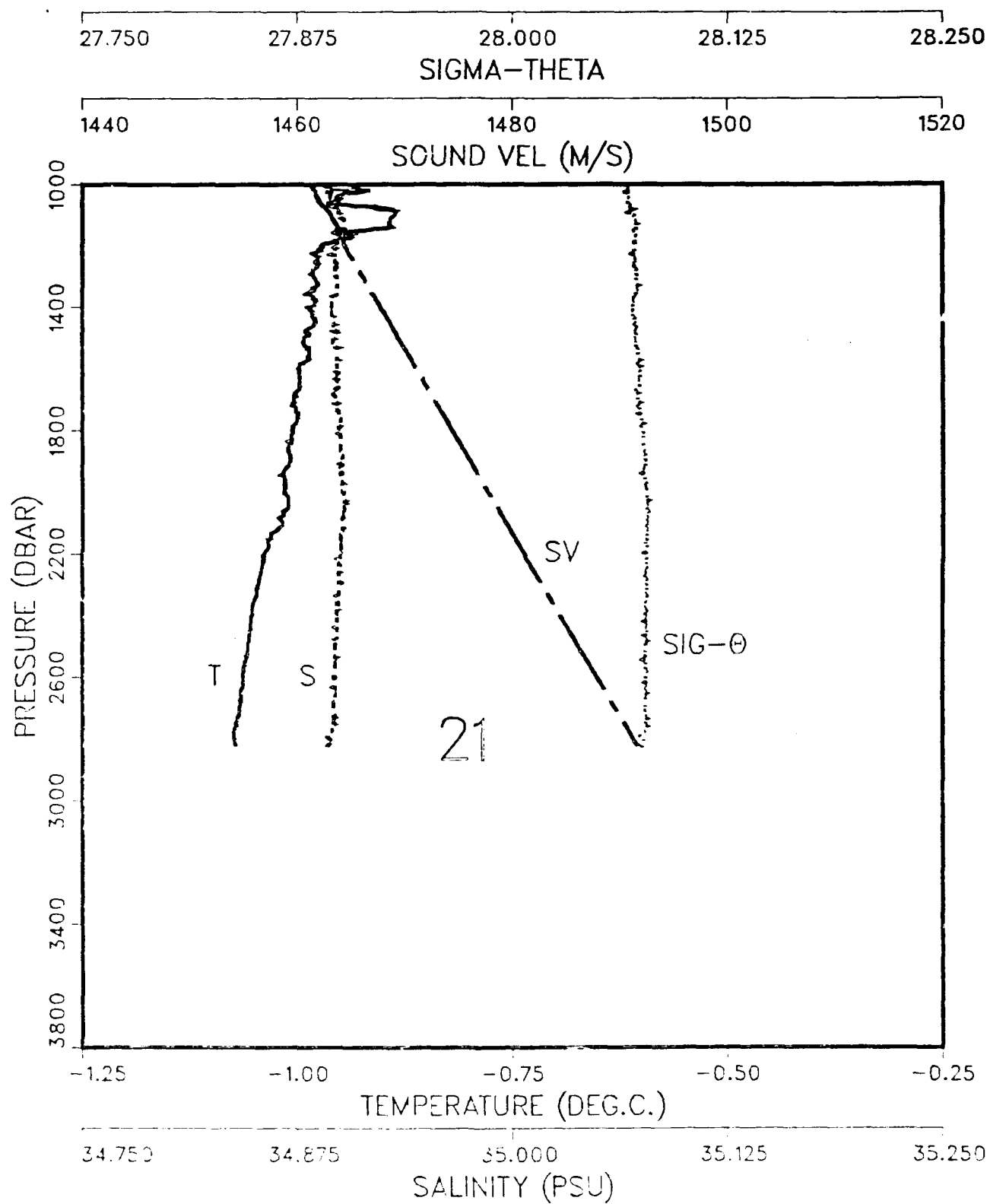


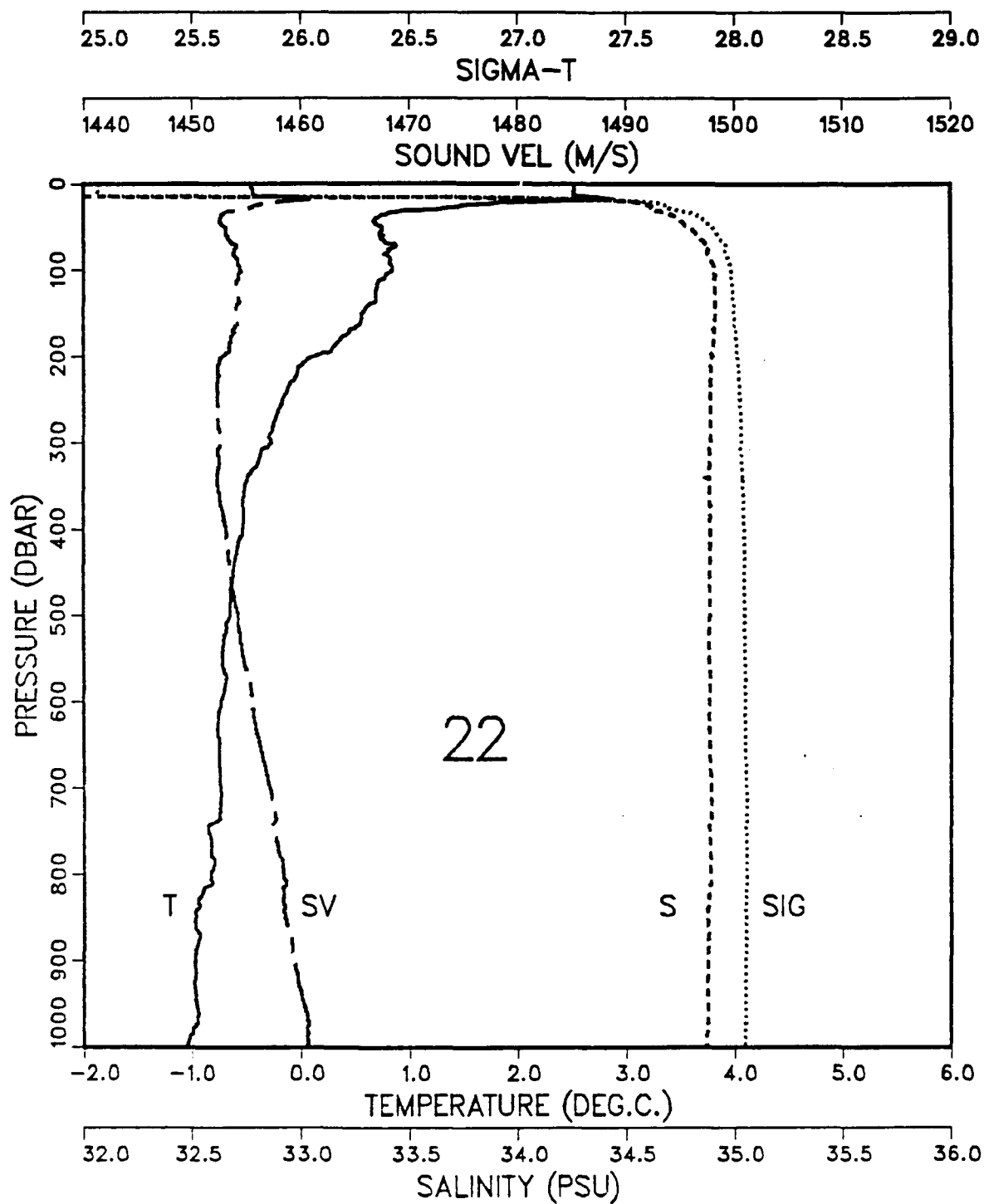


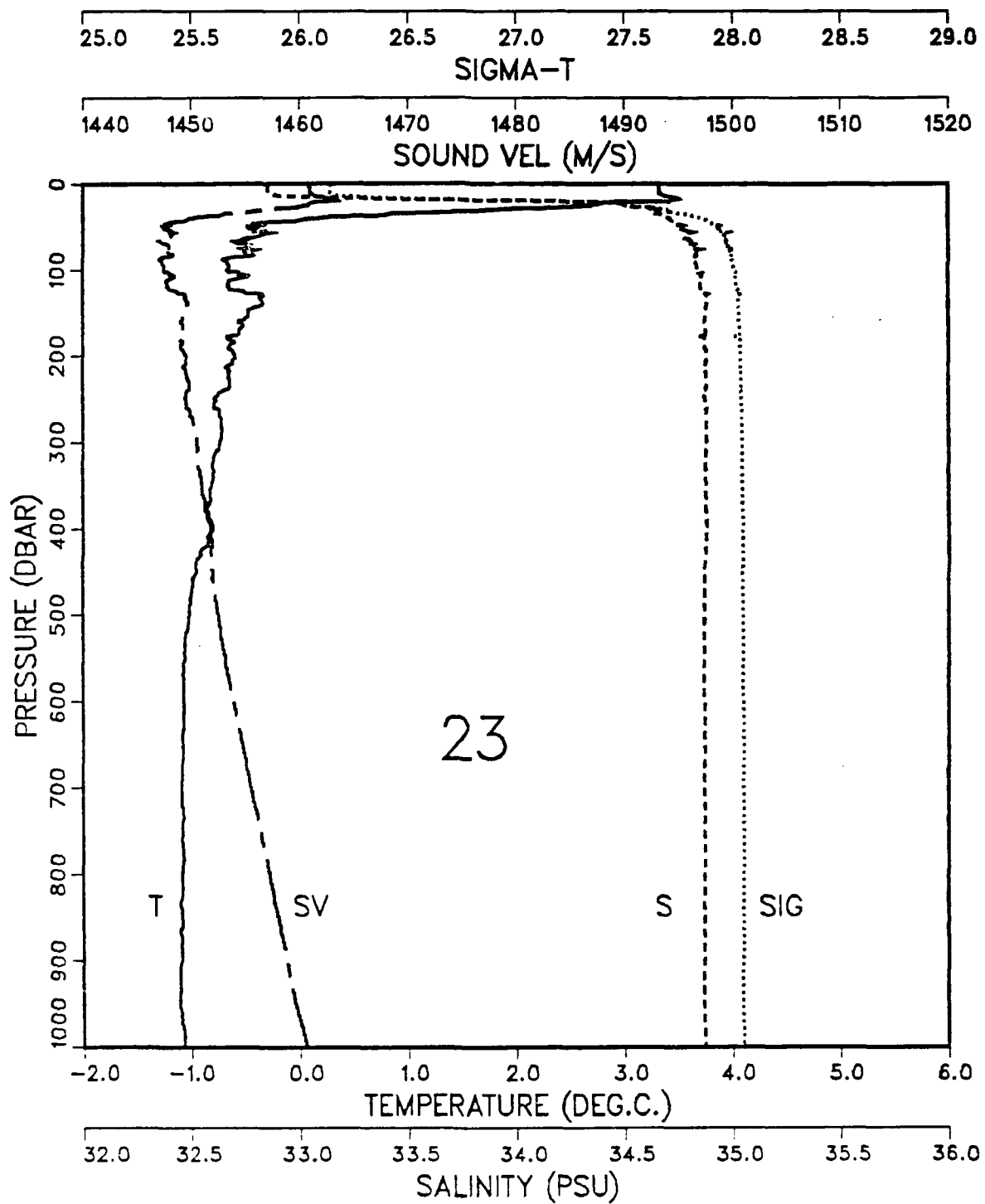


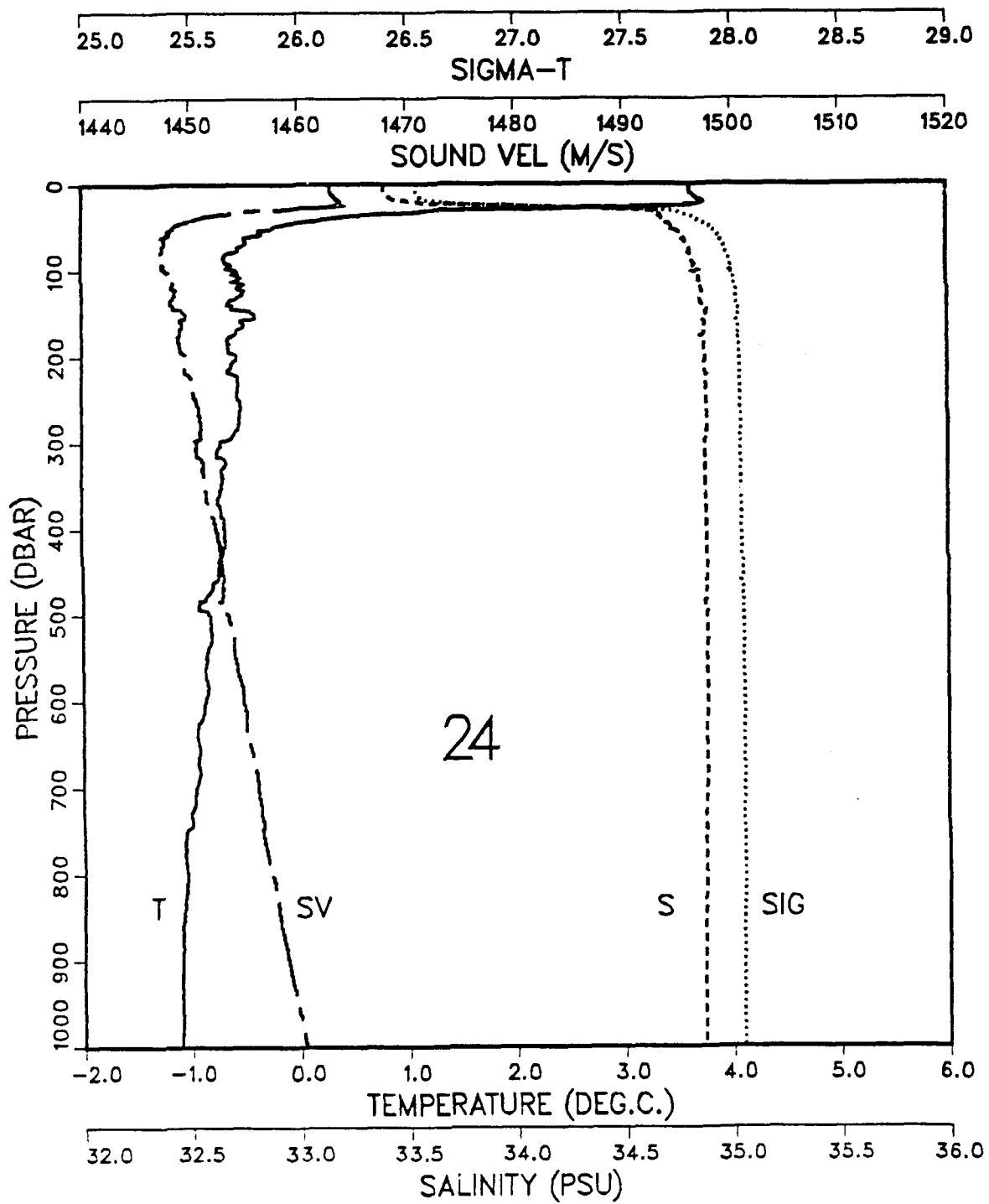


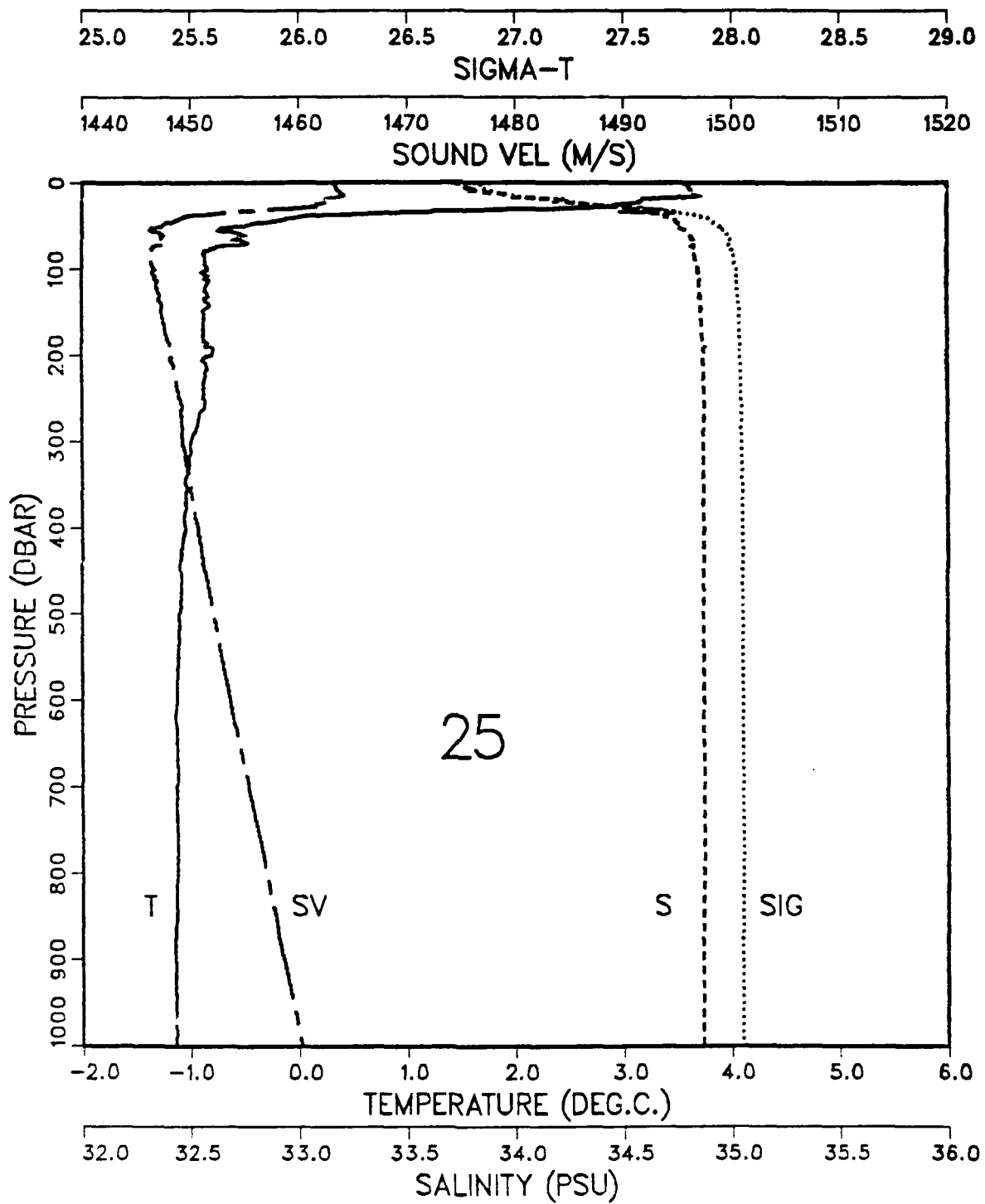


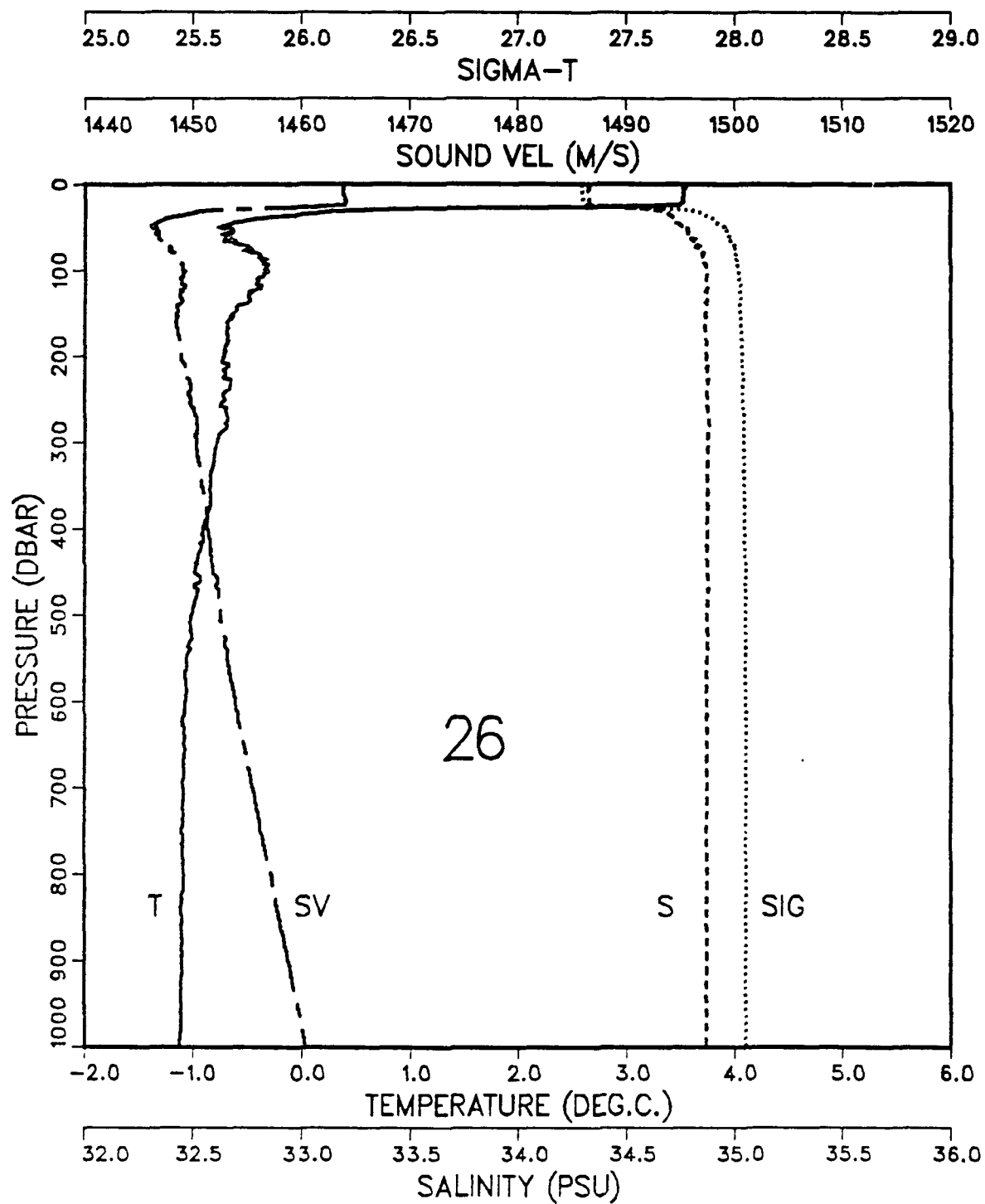


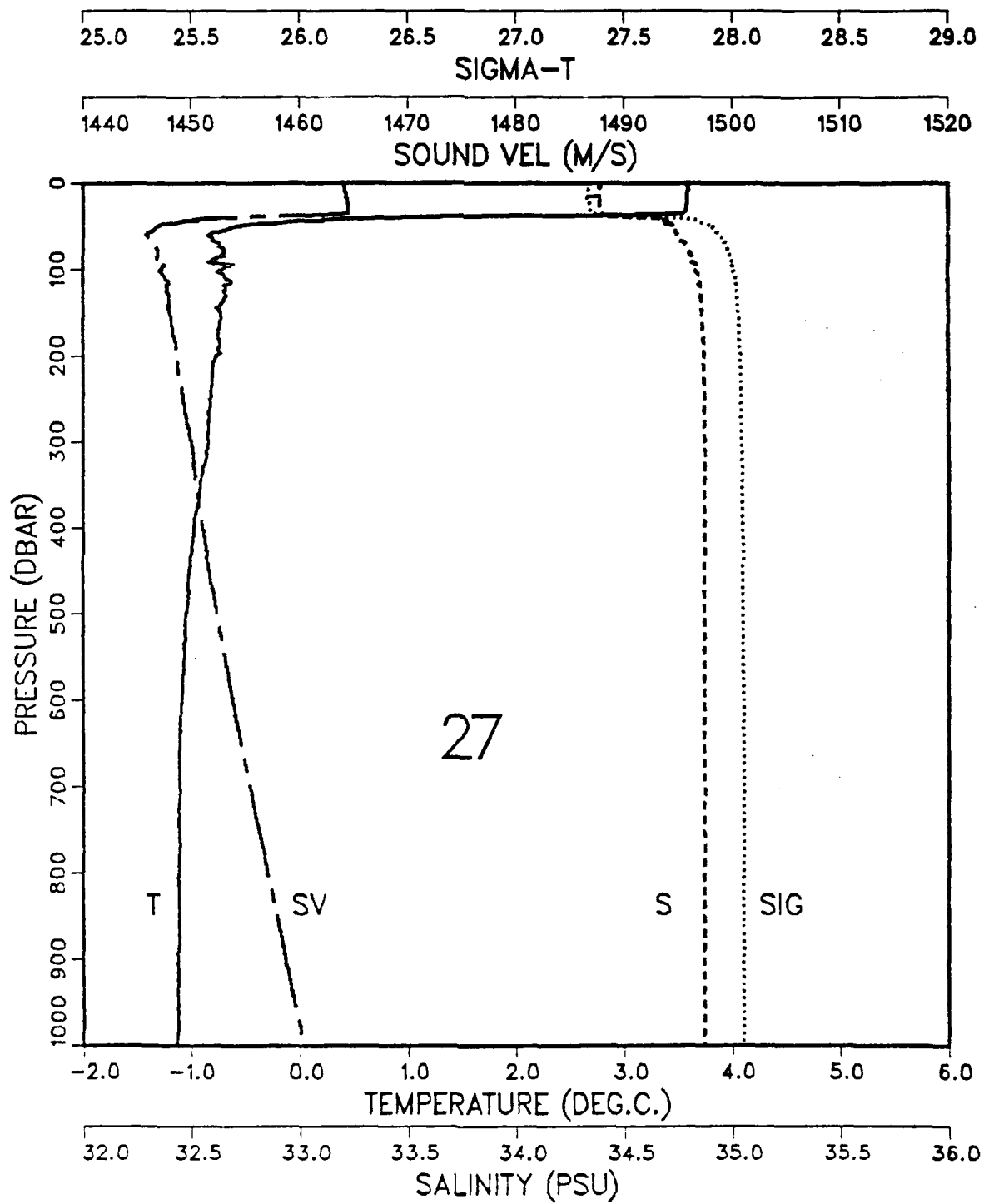


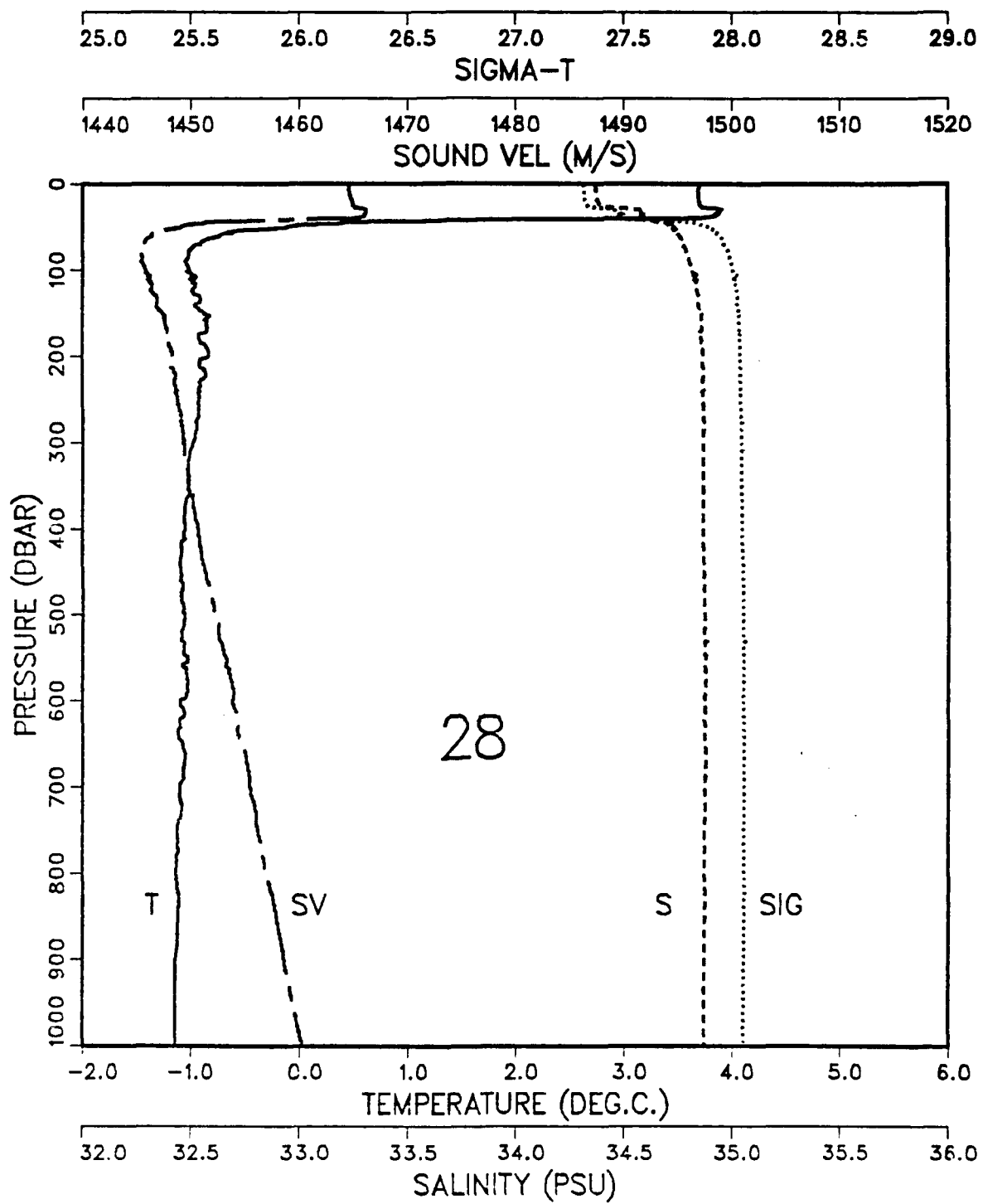


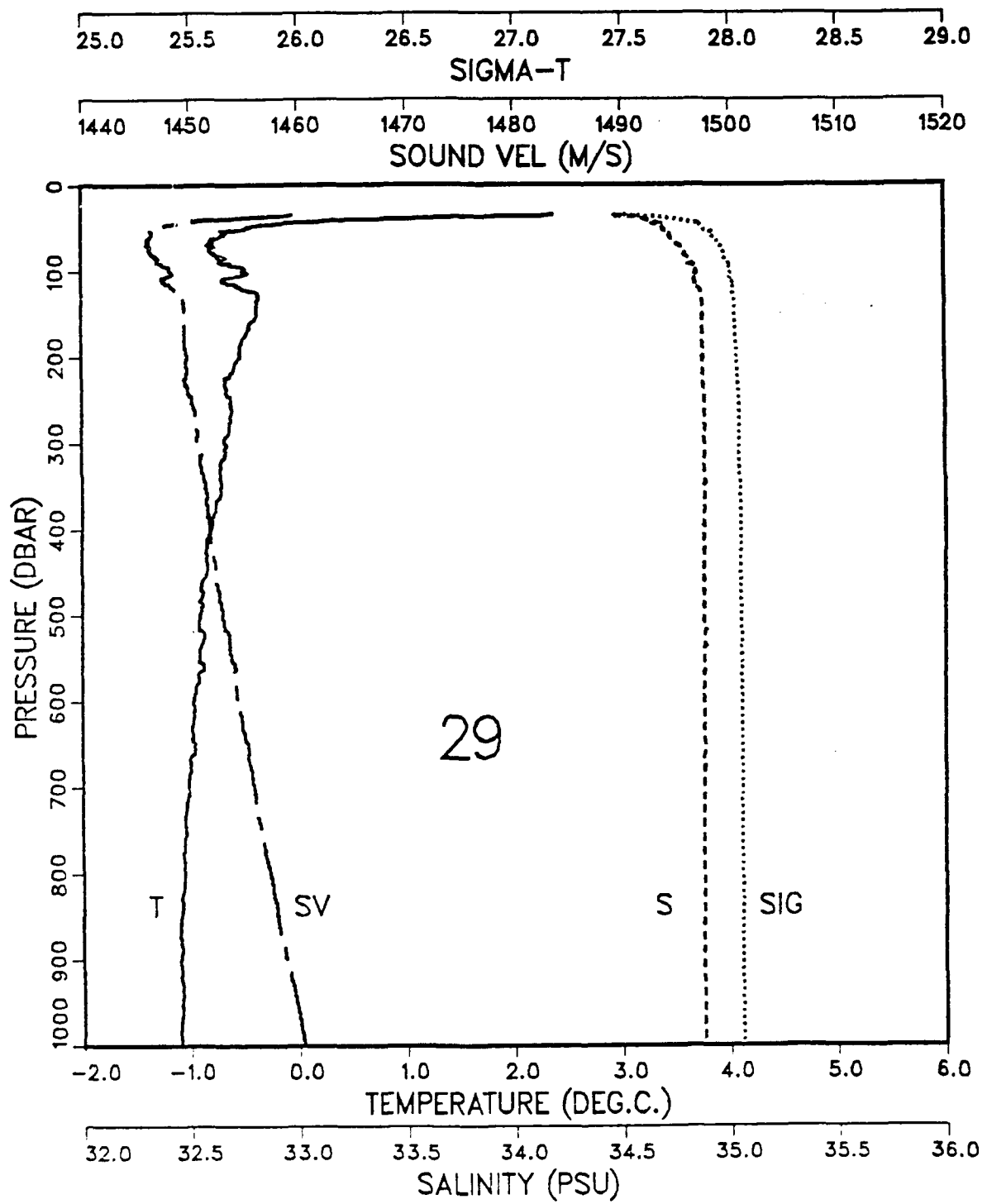


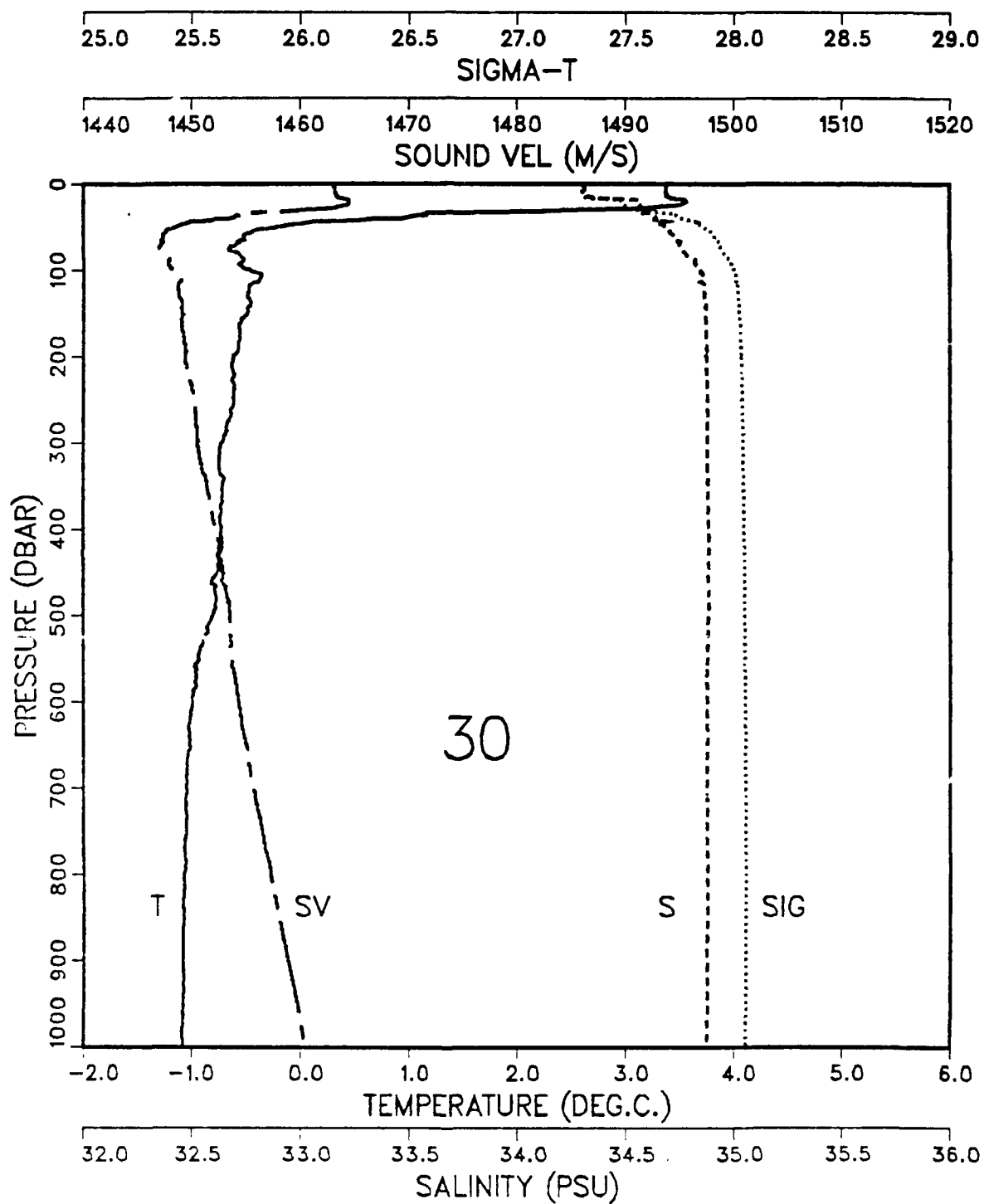


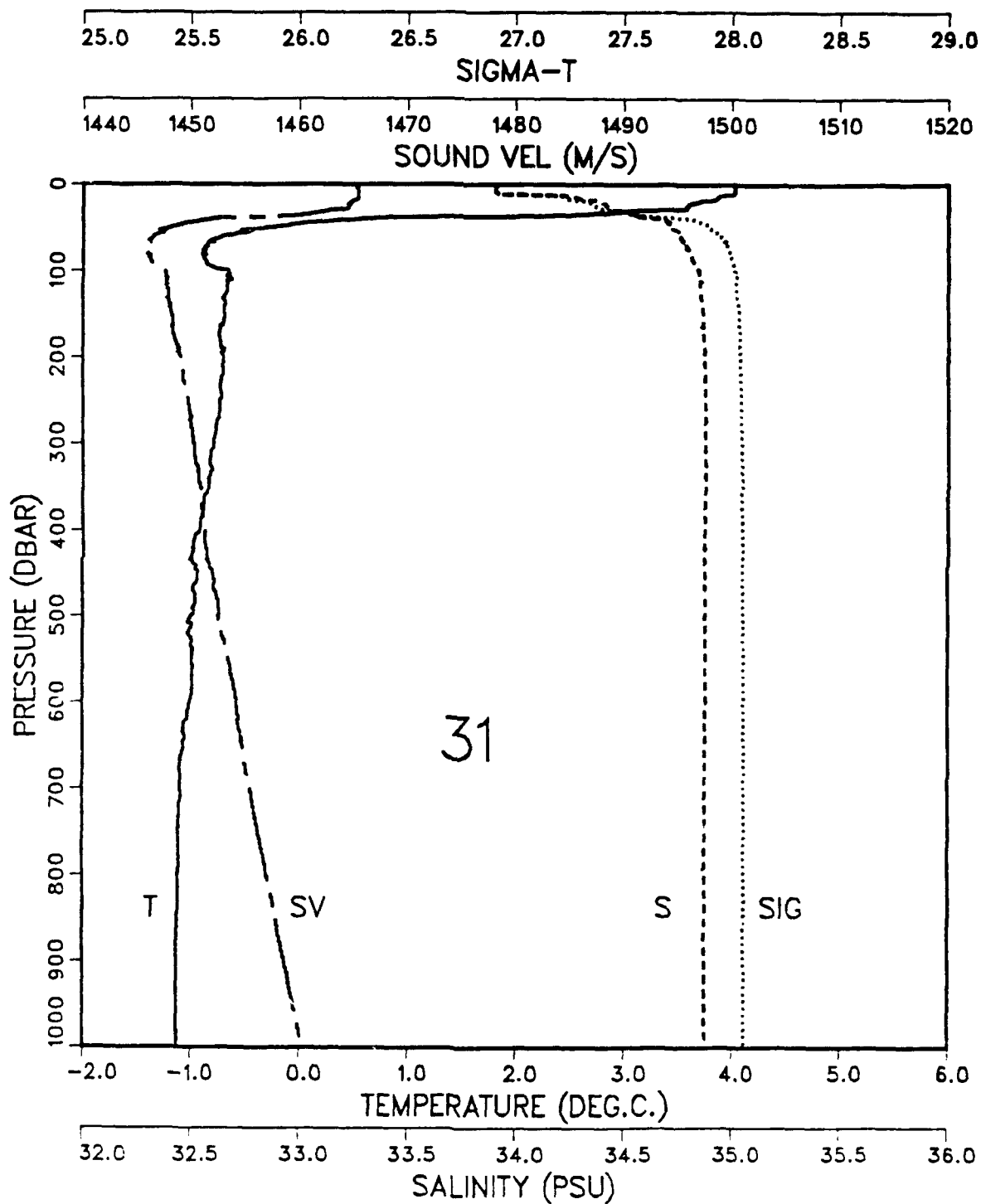


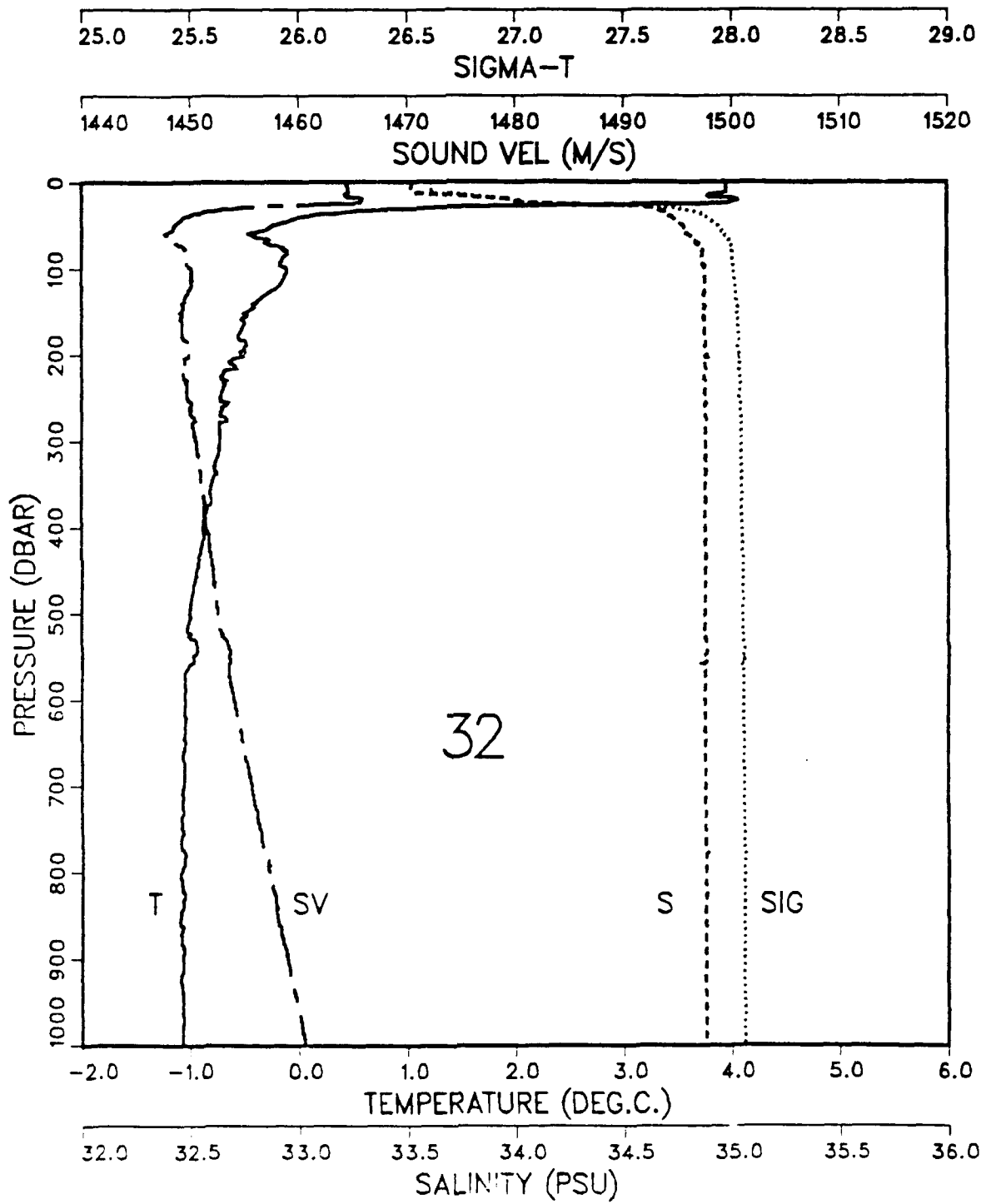


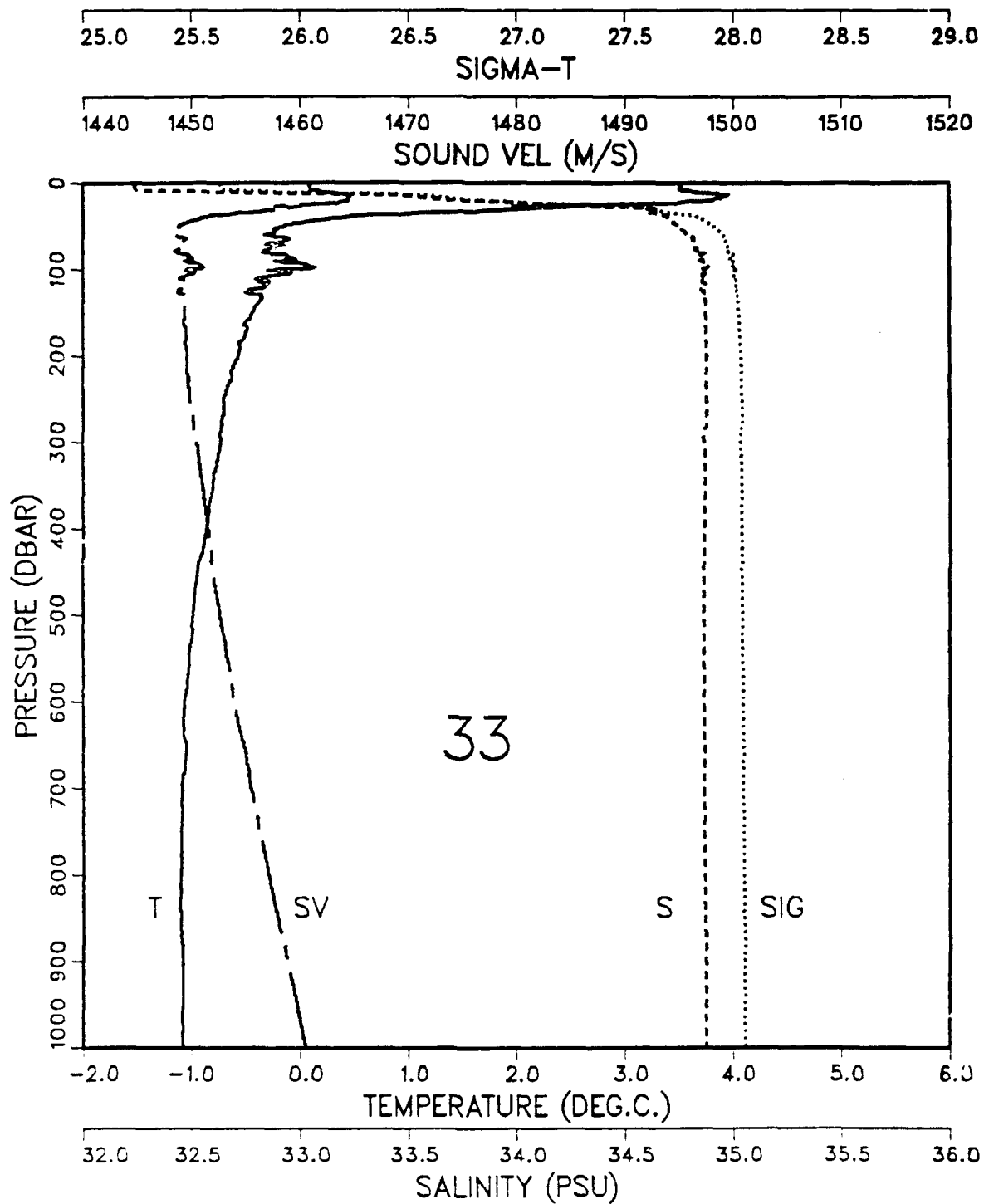


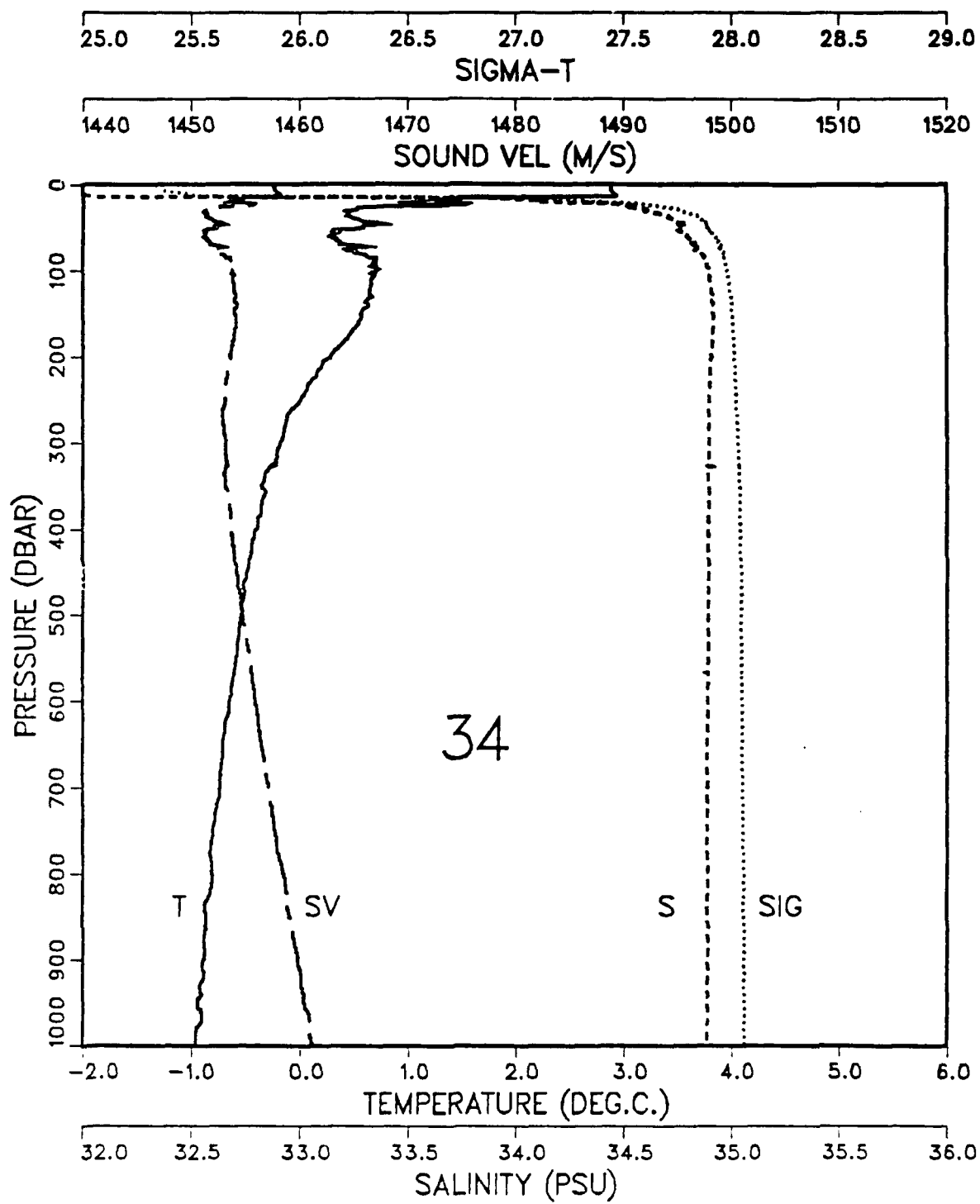


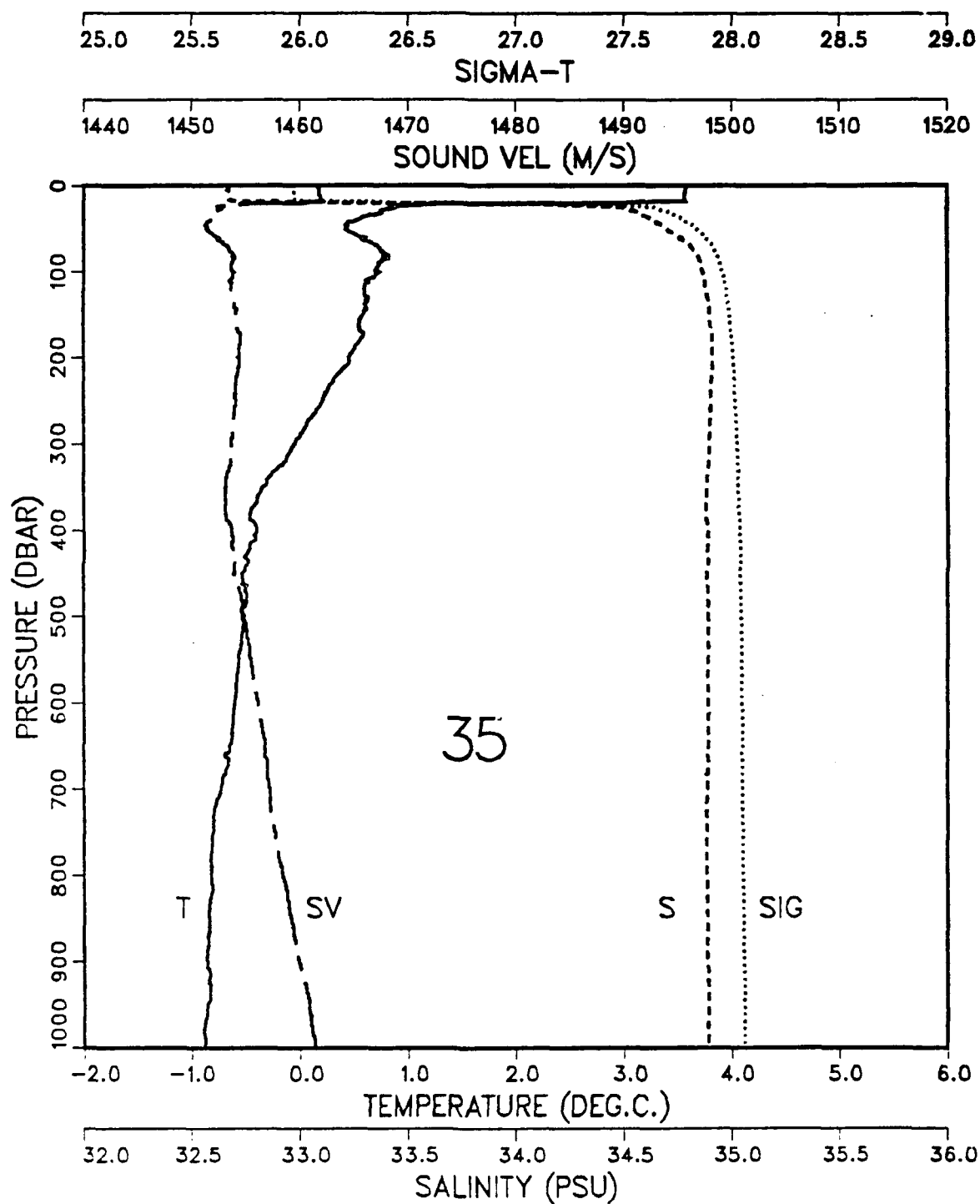


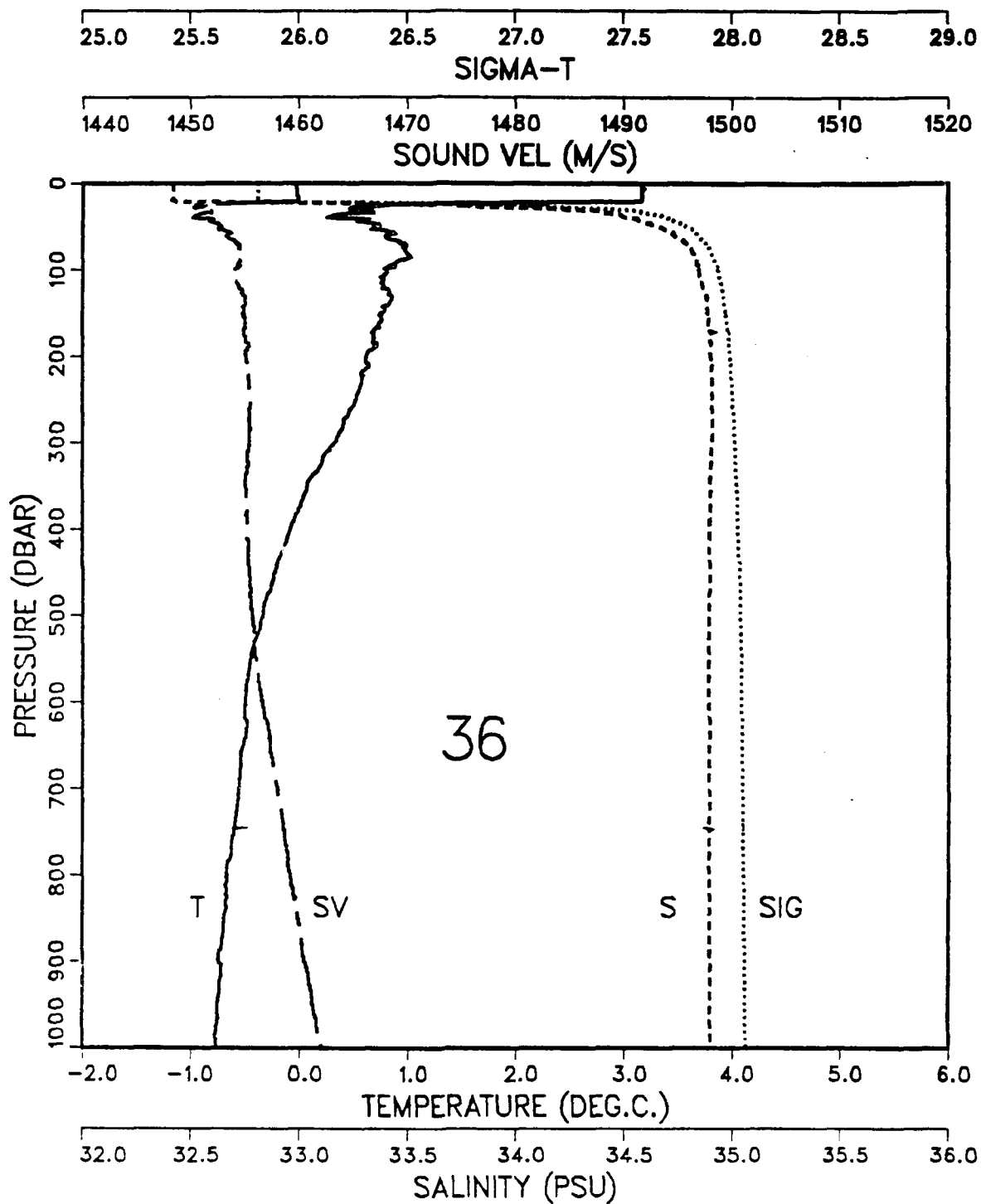


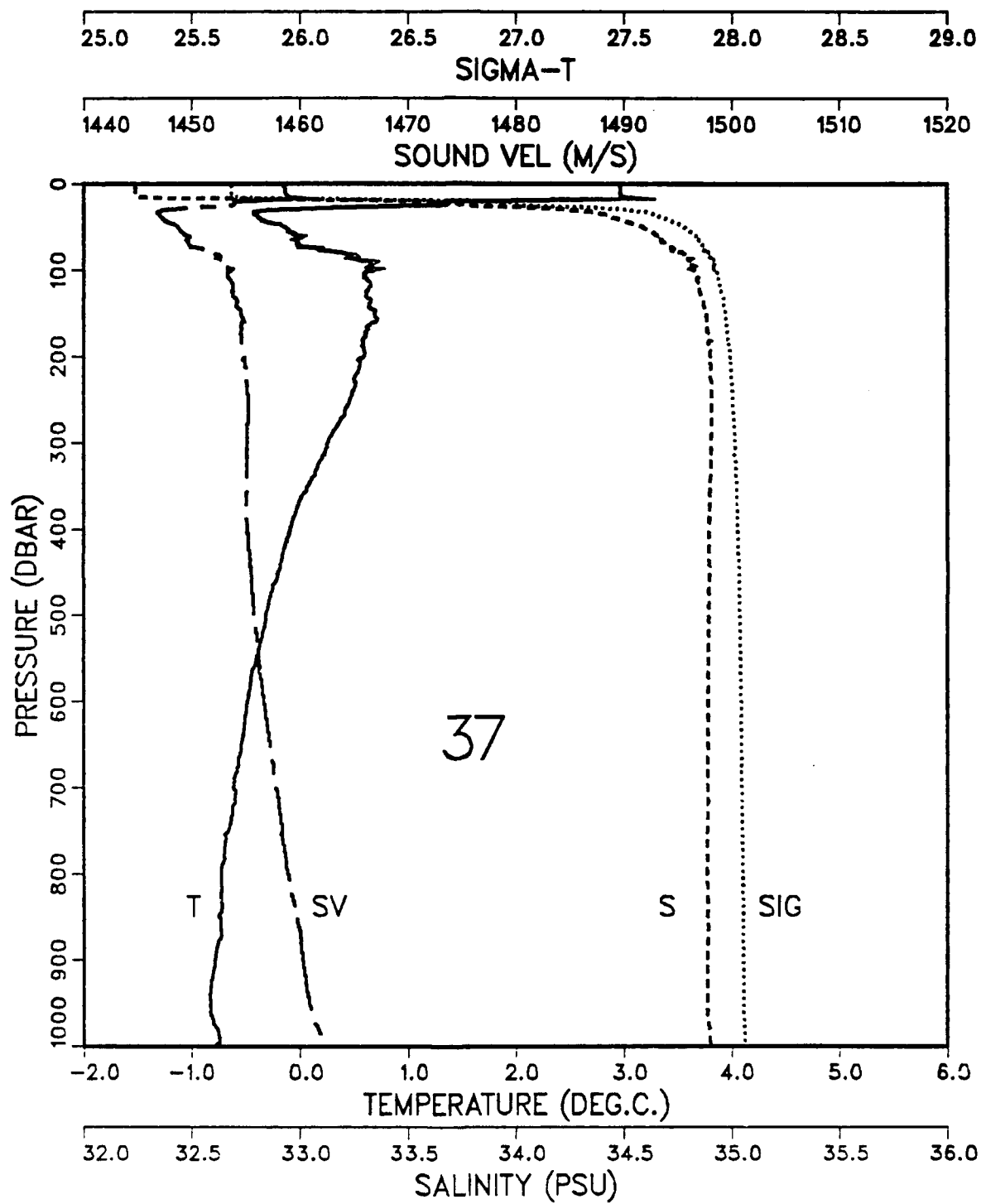


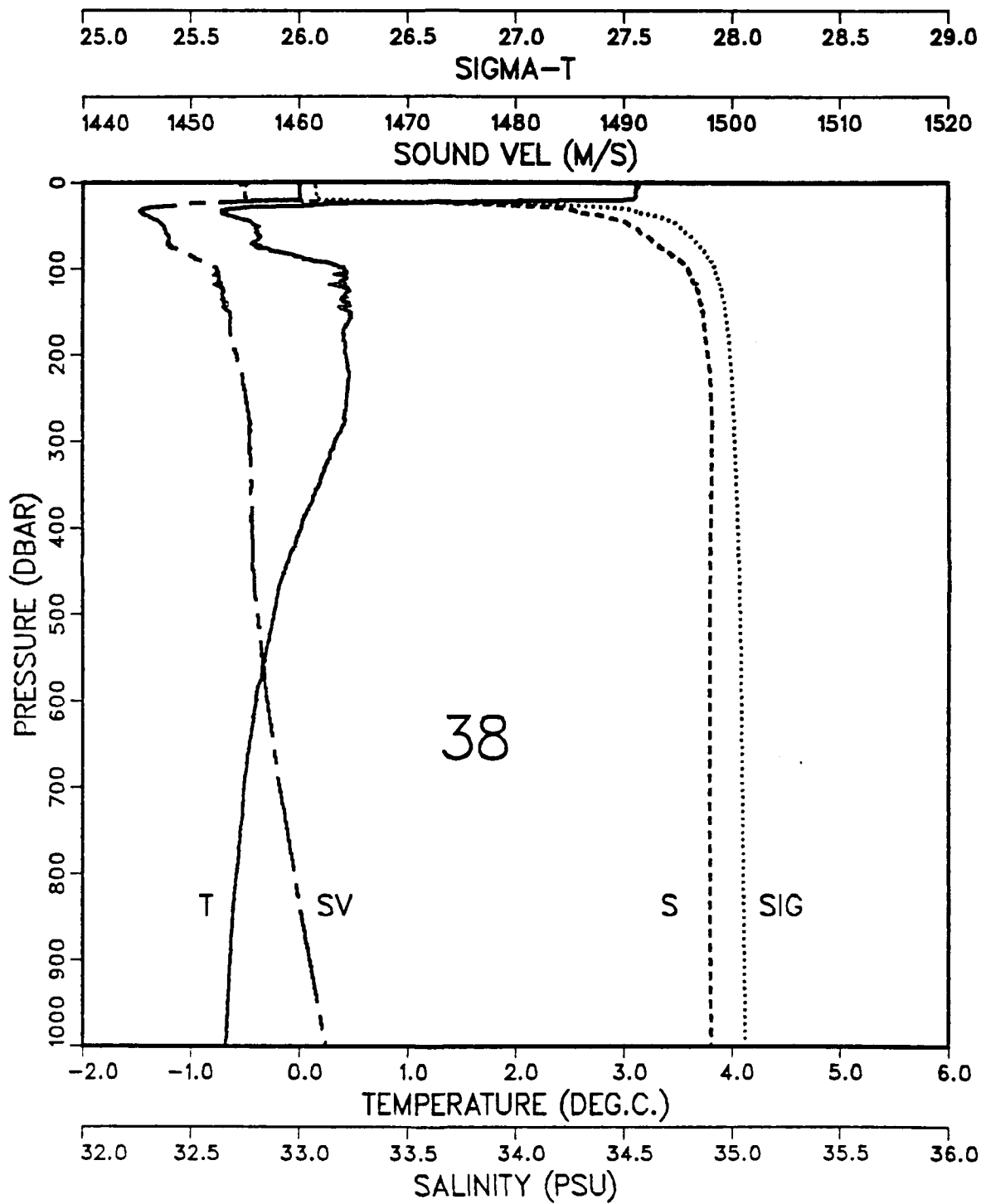


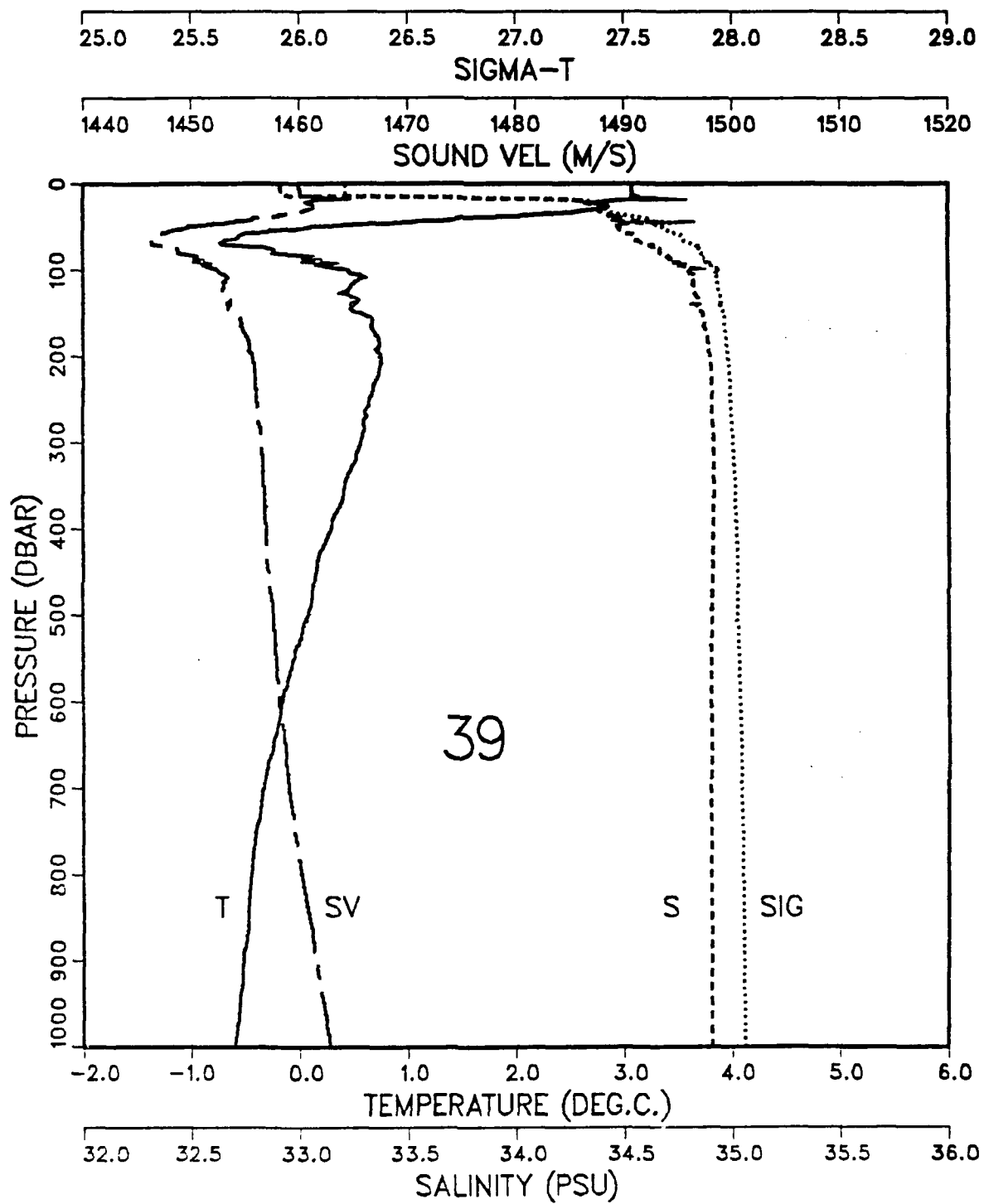


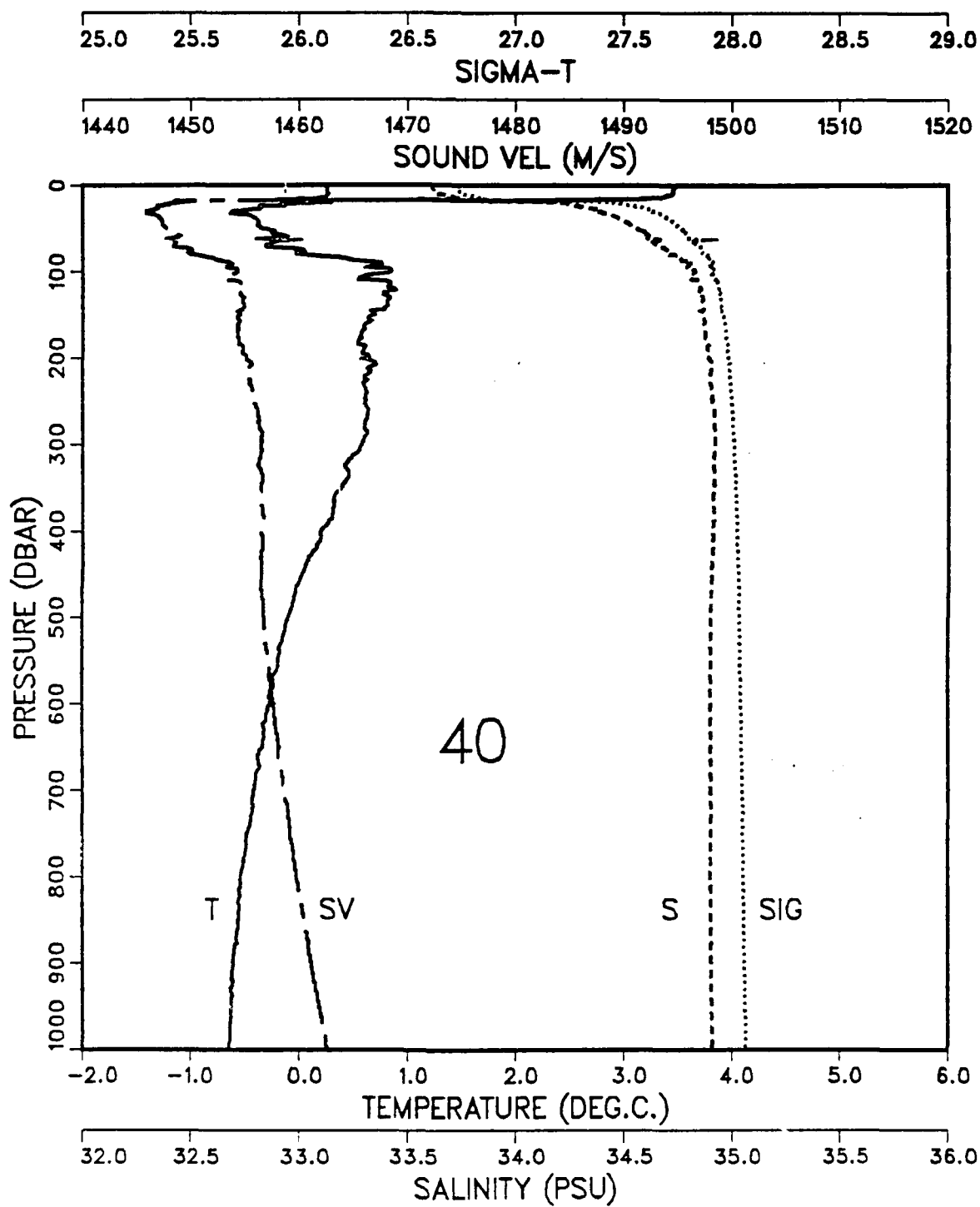


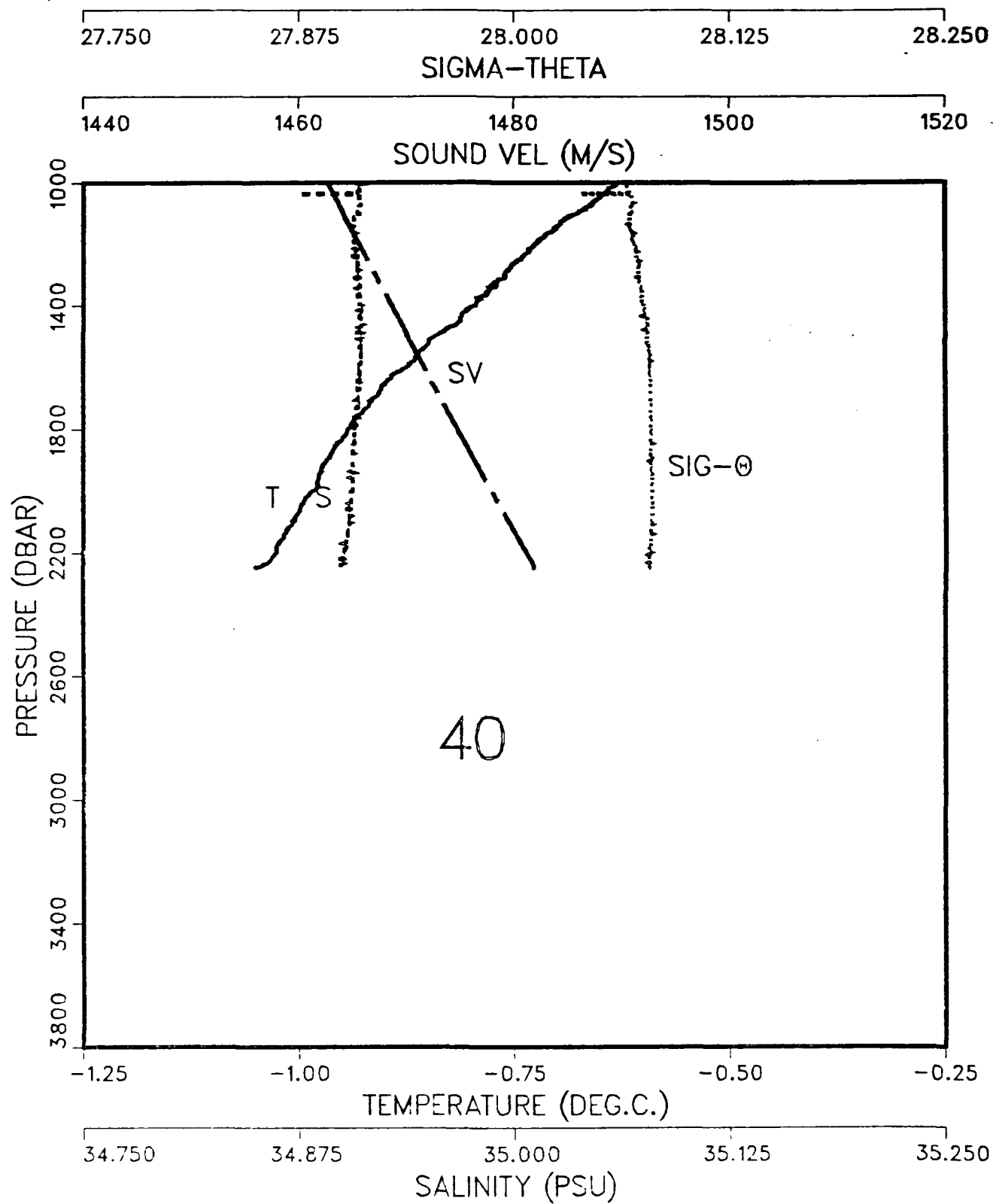


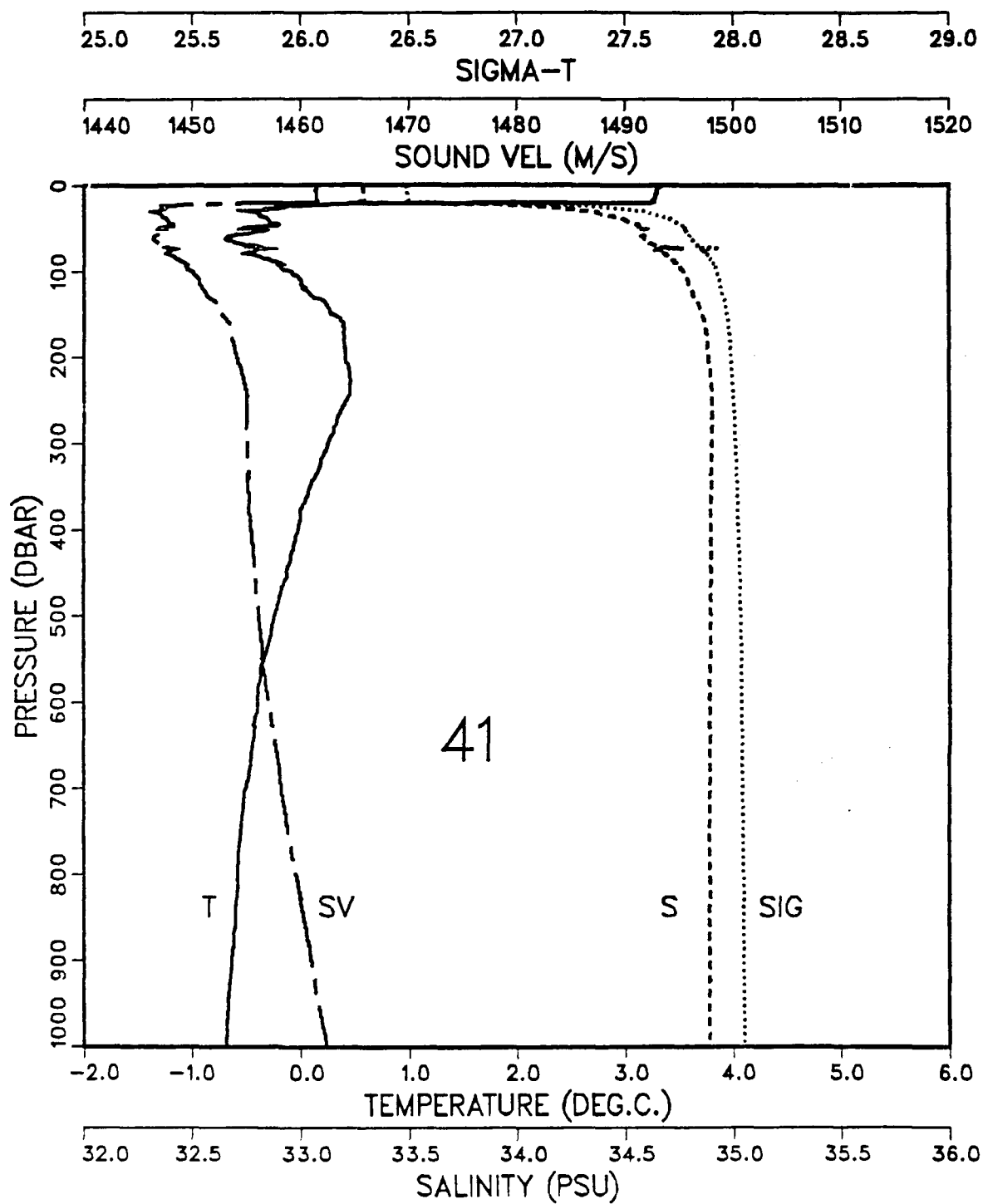


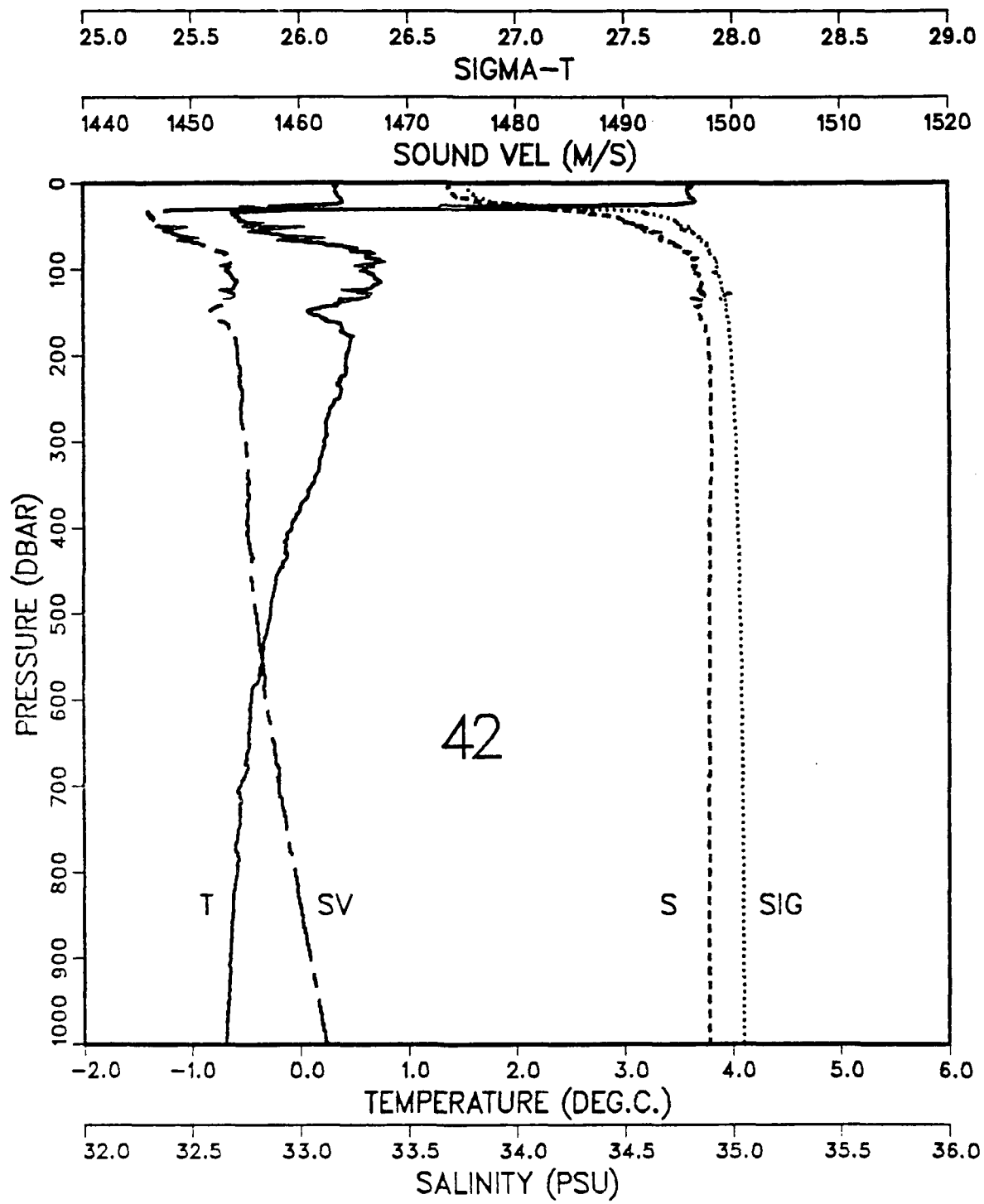


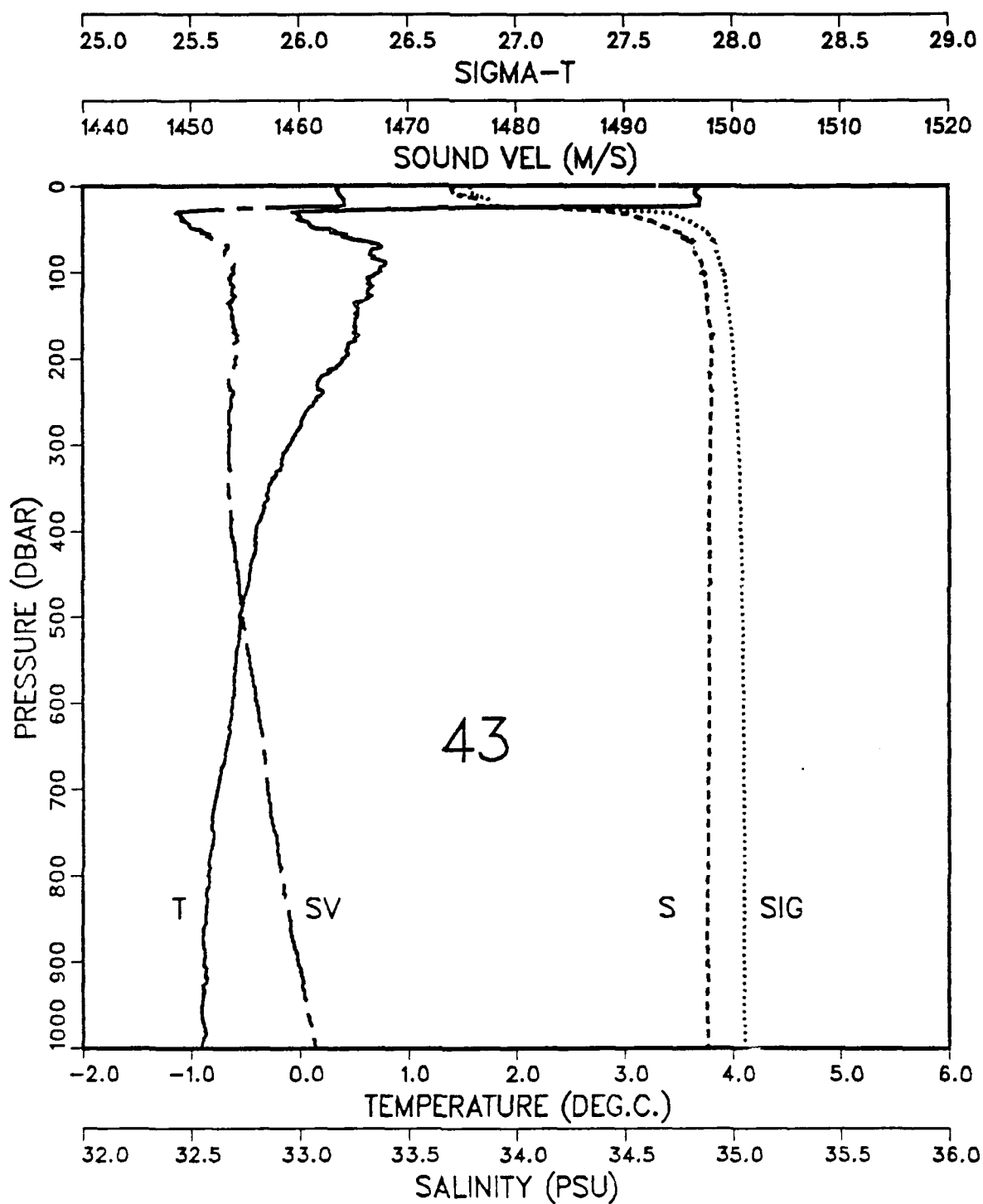


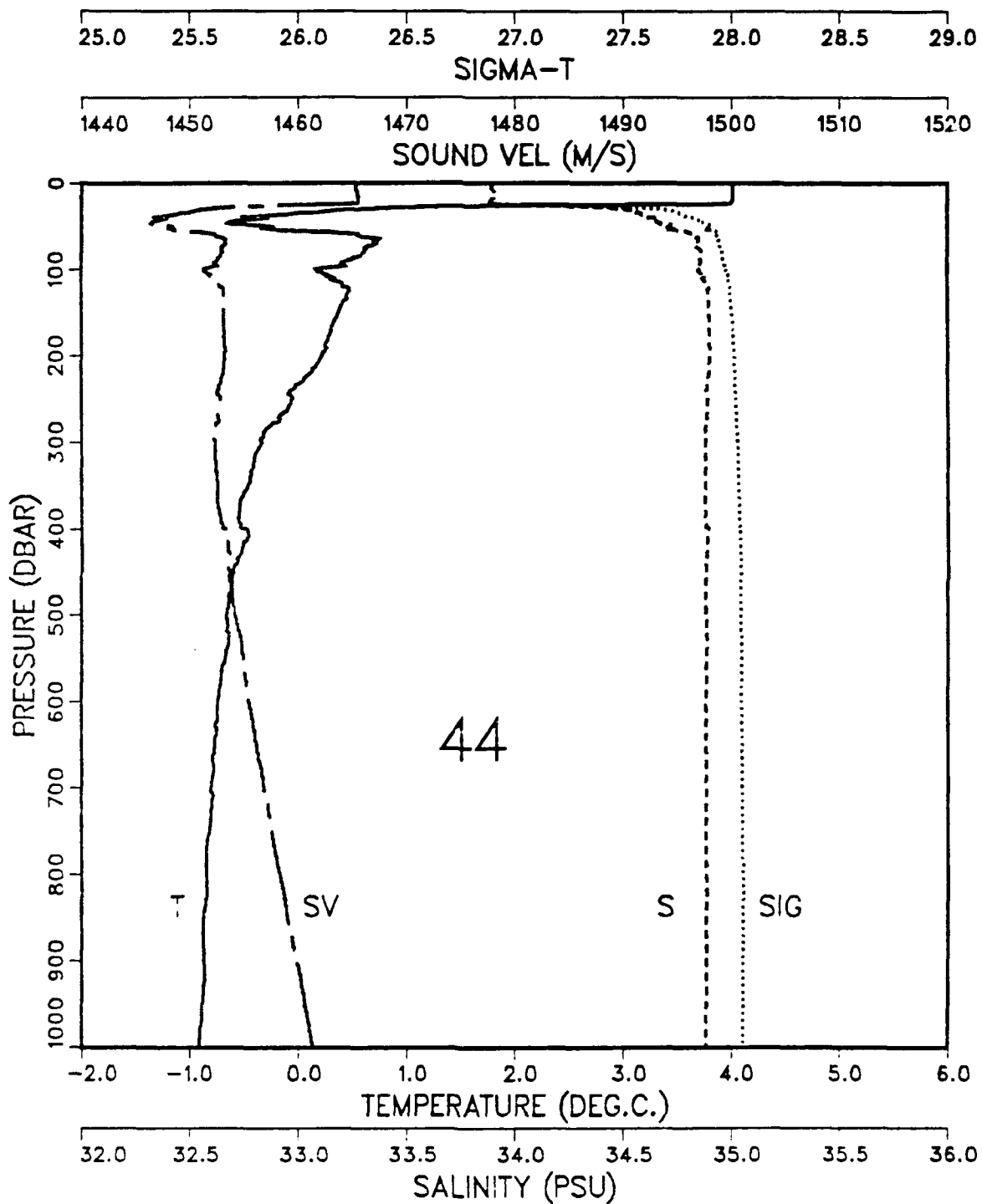


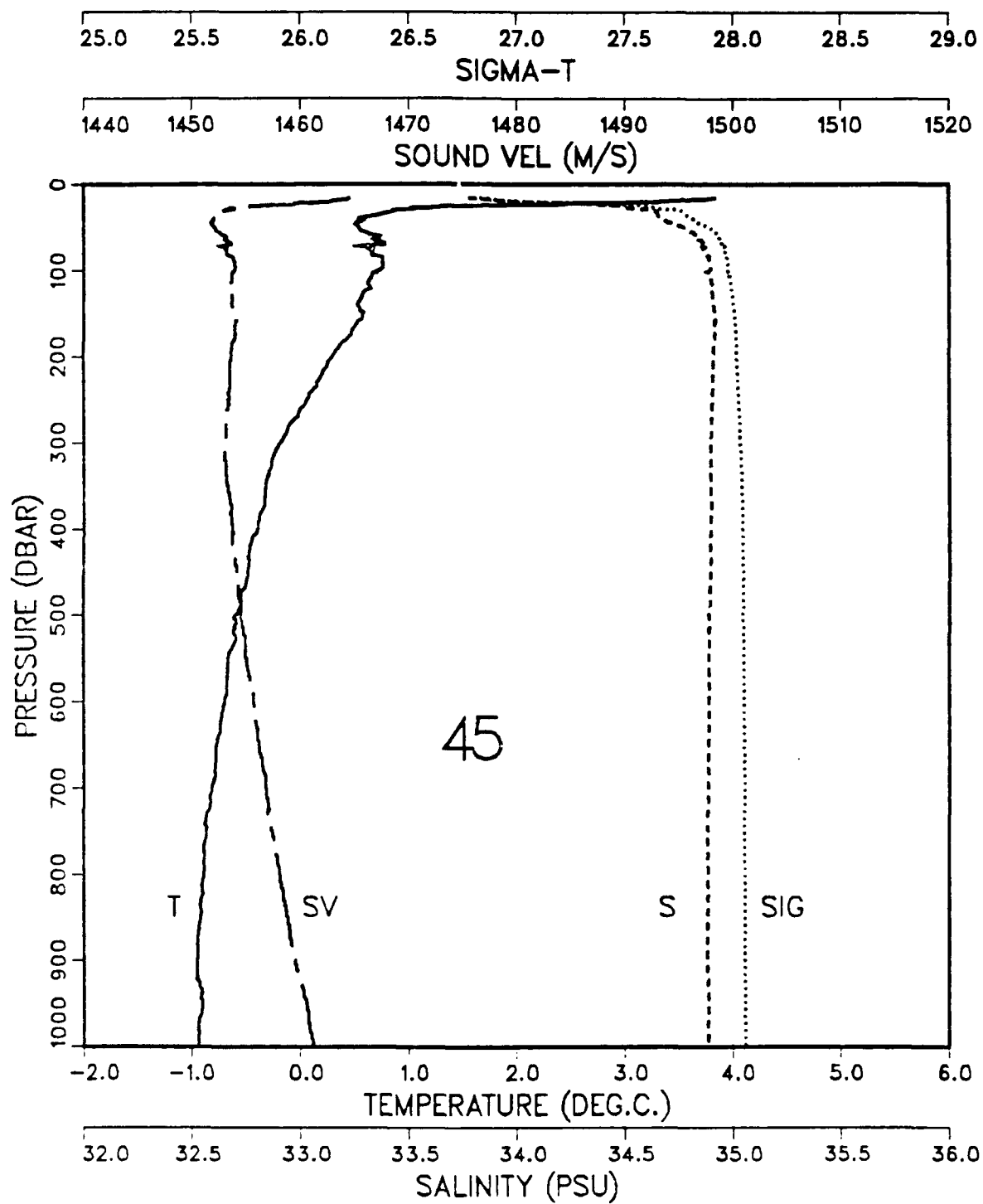


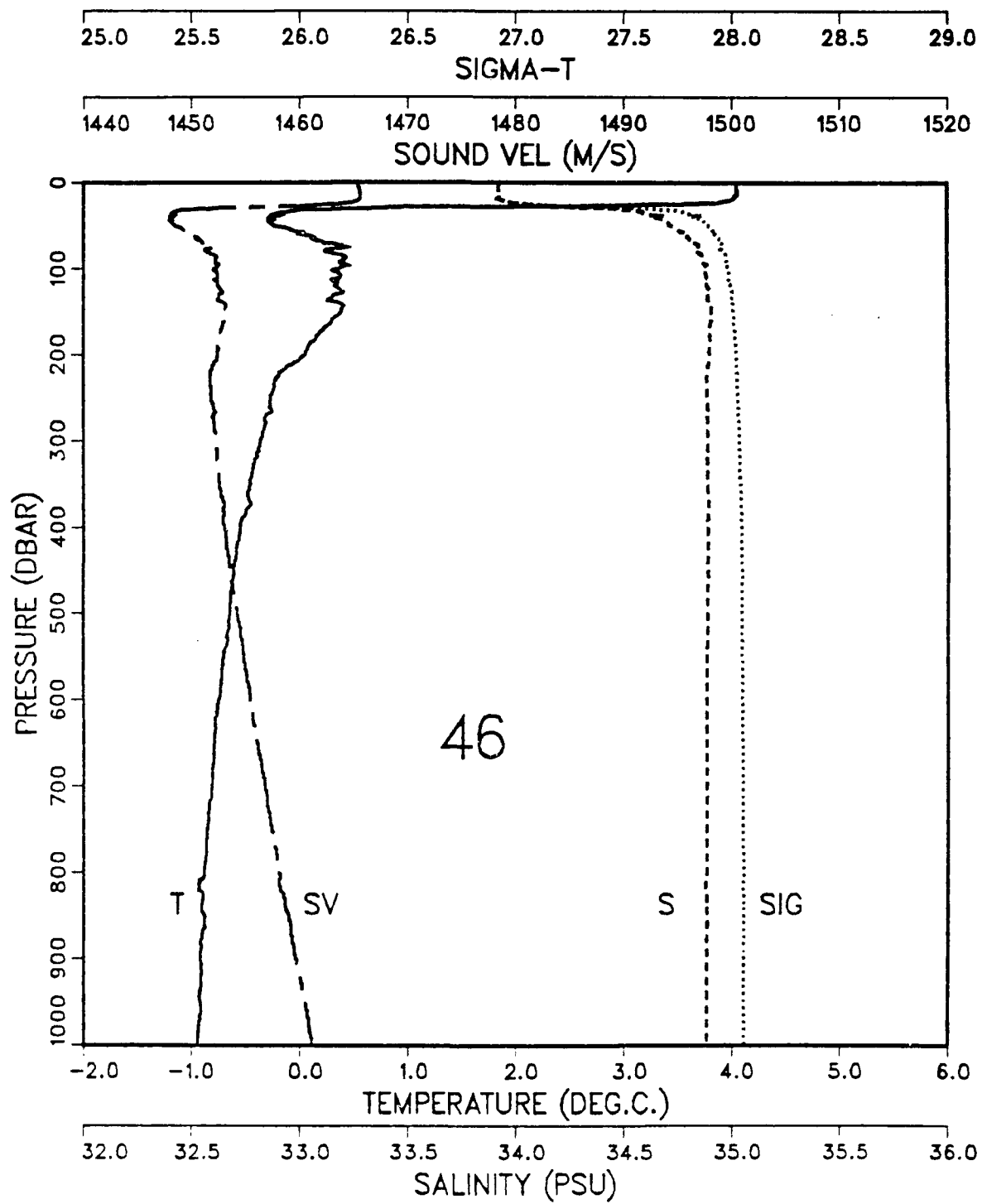


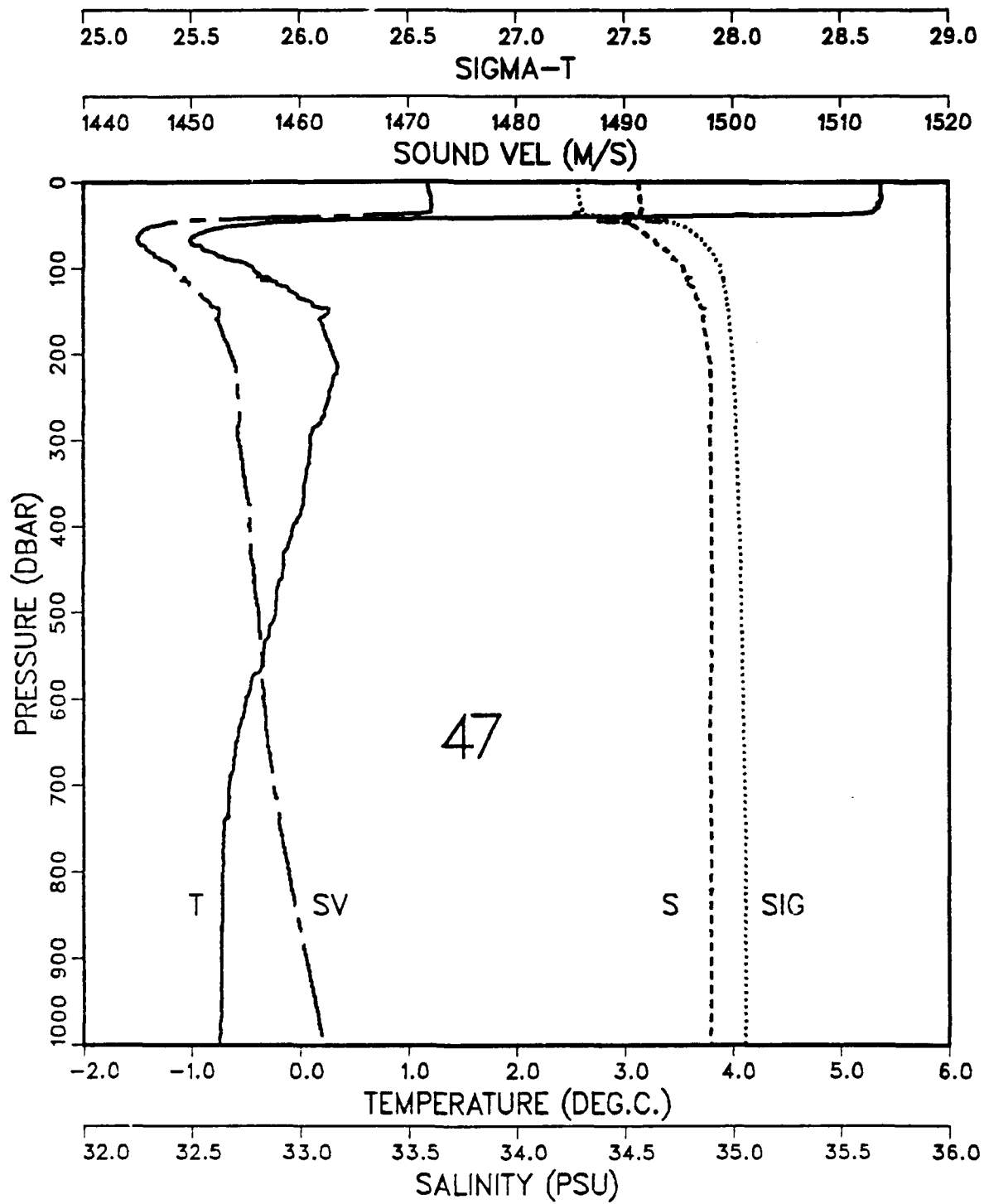


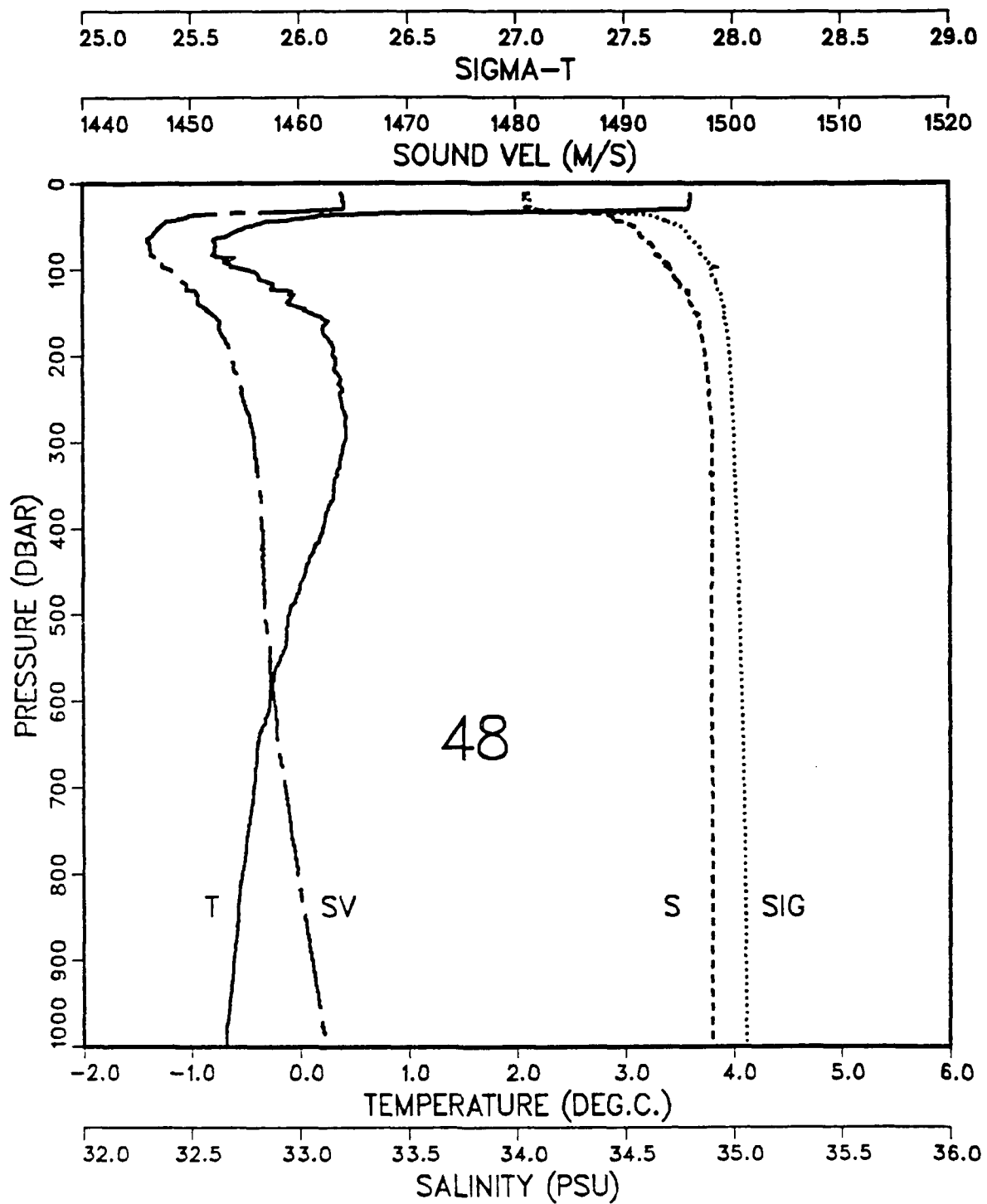


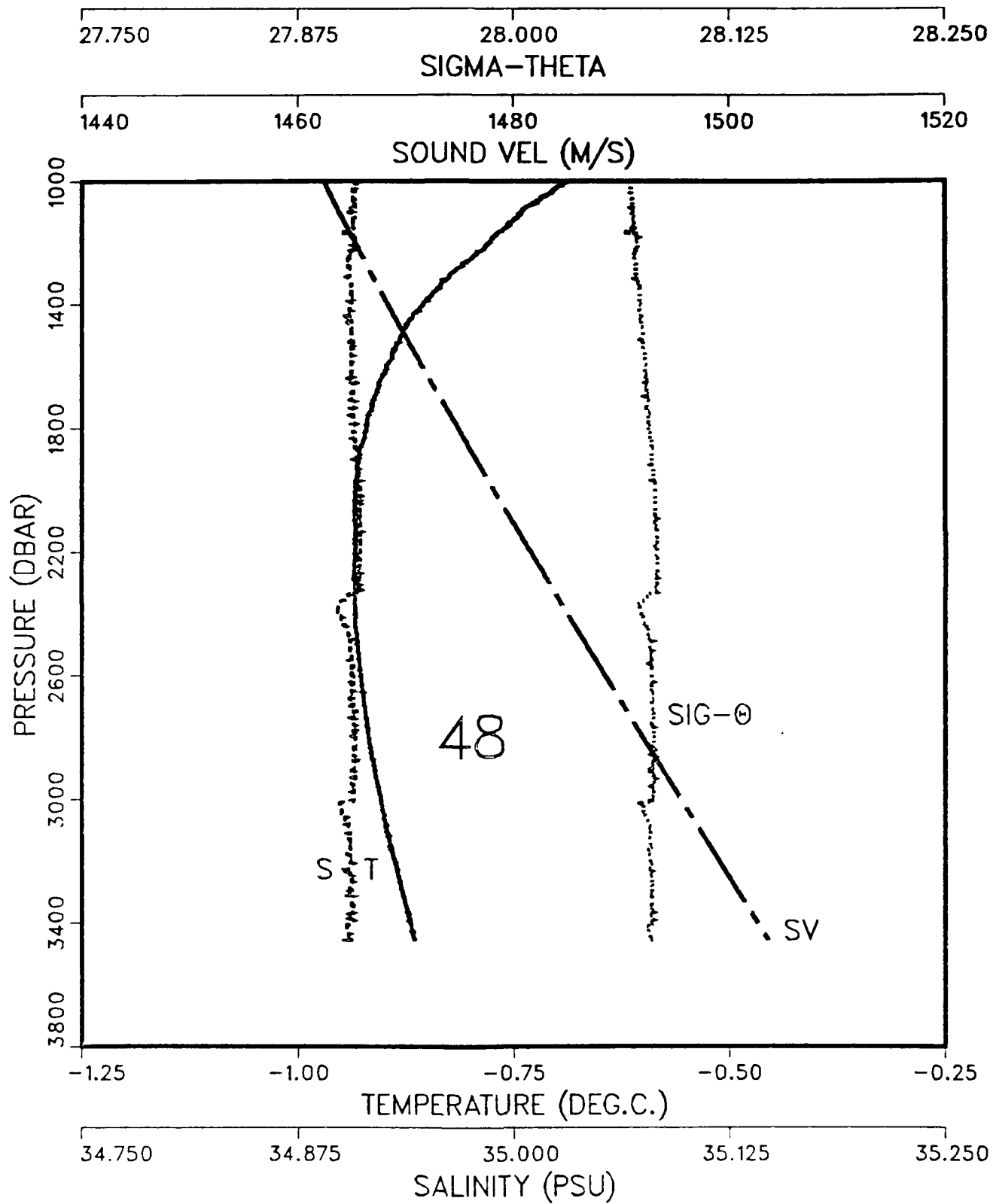












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